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# HELMINTHOLOGICAL ABSTRACTS

VOL. XVI

*incorporating*  
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For the Year 1947



COMMONWEALTH BUREAU OF AGRICULTURAL PARASITOLOGY  
(HELMINTHOLOGY)

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# HELMINTHOLOGICAL ABSTRACTS

Vol. XVI, Part 5

1947

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# HELMINTHOLOGICAL ABSTRACTS

INCORPORATING BIBLIOGRAPHY OF HELMINTHOLOGY  
FOR THE YEAR 1947

Vol. XVI, Part 5

## 367—Acta Medica Philippina.

- a. PESIGAN, T. P. & YOGORE, Jr., M. G., 1947.—“The relative value of the acid-ether centrifugation and Faust-Meleney egg-hatching technics in the diagnosis of schistosomiasis japonica.” 4 (1), 69–86.
- b. PESIGAN, T. P., 1947.—“Brain schistosomiasis: a contribution to its pathogenesis.” 4 (2), 39–46.

(367a) Pesigan & Yogore examined each of 372 faecal specimens by direct smear (5 preparations), by acid-ether centrifugation, and by the Faust-Meleney hatching technique. They found a total of 187 positive for *Schistosoma japonicum*, of which 109 (56.3%) were detected by direct smear, 140 (74.8%) by acid-ether centrifugation, and 144 (77%) by the egg-hatching technique. The combination of the three methods was significantly better than any one method. E.M.S.

(367b) Pesigan describes cases of cerebral schistosomiasis, and produces evidence that the eggs may be deposited in the brain by aberrant adults developing *in situ*. E.M.S.

## 368—Acta Pontificia Academia Scientiarum, Vatican City.

- a. PIERSANTI, C., 1947.—“Sulla presenza e sulla distribuzione del *Leucochloridium macrostomum* (Rud.) in Italia.” 11 (8), 95–108. [Latin summary p. 95.]

(368a) Piersanti gives tabular records of his findings of *Leucochloridium macrostomum* in various *Succinea* spp. and in a wide variety of resident and migratory birds in Italy. He suggests that the comparative rarity of the parasite in birds may be due in large measure to vermifugal action of many of the foods consumed by birds on migration, e.g. Tanacetum, thyme, valerian, etc. E.M.S.

## 369—Acta Societatis Scientiarum Naturalium Moravicae.

- a. WEISER, J., 1947.—“Klíč k určování Mikrosporidií.” 18 (188/198), 1–64.

(369a) Weiser has collated the records of microsporidia and presents a host list. Helminth records are: *Nosema distomi* in *Distomum linguatula* and *D. vitellaria*; *N. legeri* in *Brachycoelium* sp.; *N. spelotremae* in *Spelotrema carcini*; *Glugea ghighei* in *Telorchis ercolanii* and *Plerocercoides pancerii*; *G. encyclometrae* in *T. ercolanii* and *Encyclometra bolognensis*; *Nosema mystacis* in *Toxocara cati* [= *T. mystax*] and *Thelohania reniformis* in *Protospirura muris*. E.M.S.

## 370—[Acta Zoologica et Oecologica, Universitatis Lodziensis.]

- a. PAWŁOWSKI, L. K., 1947.—“Sur la biologie du *Cystobranthus fasciatus* (Kollar).” Sectio III, No. 2, 16 pp. [Polish summary pp. 15–16.]

(370a) The movements of the leech *Cystobranthus fasciatus* and the shape of its cocoon which measures 1.75 mm. by 0.5 mm. are described and illustrated. R.T.L.

\* Titles so marked throughout this number have not been seen in the original.



## 371—Actas Luso-Españolas de Neurología y Psiquiatría.

- a. OBRADOR ALCALDE, S., 1947.—“Algunas consideraciones sobre las diferentes manifestaciones clínicas y el diagnóstico de la cisticercosis cerebral.” 6 (1), 27-42. [Appendix pp. 40-42 by D. Nieto.]

## 372—Actualidad Médica. Granada.

- a. BOTTENBERG, H., 1947.—“Nuevos puntos de vista en el tratamiento por sanguijuelas.” Año XXIII, 33 (266), 100-106.  
b. ALMANSA DE CARA, 1947.—“Quiste hidatídico pulmonar en la infancia.” Año XXIII, 33 (266), 114.

## 373—Afrique Française Chirurgicale.

- a. COSTANTINI, H., 1947.—“Evolution thoracique d'un kyste hydatique du foie sans ouverture bronchique.” Year 1947, No. 1, pp. 66-68.  
b. DÉVÉ, F., 1947.—“Kyste hydatique et lithiase. Les lithiases échinococciques.” Year 1947, No. 2, pp. 79-89.  
c. CURTILLET, E., AUBANIAC & HOUEL, J., 1947.—“Lobectomie d'indication exceptionnelle: la lobectomie pour kyste hydatique du poumon.” Year 1947, No. 4, pp. 253-256.  
d. CURTILLET, E. & AUBANIAC, 1947.—“Double kyste hydatique du pancréas.” Year 1947, No. 4, pp. 264-267.

## 374—Agricultural Chemicals. Baltimore.

- a. NEWHALL, A. G., 1947.—“Comparison of some volatile soil fumigants.” 2 (8), 30-31, 63.  
b. LANGE, W. H., 1947.—“New developments in soil insecticides.” 2 (9), 20-23, 68-69, 71.

(374a) Reviewing recent soil fumigants lethal to eelworms and other pathogens, Newhall rates chloropicrin as one of the best since it kills some fungi, weed seeds and insects as well as eelworms; it is however phytotoxic, dangerous in handling and expensive. Methyl bromide has the advantage of being far less phytocidal and 30% less expensive, and is recommended for glasshouse soils below 65°F. D-D mixture is much cheaper and is effective against *Heterodera marioni* even without sealing the soil, but it is a poor fungicide. Phytotoxic effects and tainting of crops necessitate adequate soil-ventilation before planting. Ethylene dibromide is highly nematocidal since 0.1 c.c. will eradicate nematodes from a gallon of soil: it also is a poor fungicide. In glasshouse practice these fumigants should be regarded as cheap substitutes for steam sterilization. B.G.P.

(374b) Reviewing recent literature on soil insecticides, Lange refers incidentally to the nematocidal properties of D-D mixture, ethylene dibromide and ethylene dichloride. Propylene dichloride [=dichloro-propane] is reported as not nematocidal. B.G.P.

## 375—Alexander Blain Hospital Bulletin. Detroit.

- \*a. PERSSE, J. D. & HEAVNER, L. E., 1947.—“Echinococcus cysts of the liver; report of two cases.” 6 (4), 143-151.

## 376—Algérie Médicale.

- a. RAYNAUD, R. & HUGUENIN, A., 1947.—“Obstruction bronchique par kyste hydatique suppuré—action de la pénicilline.” 50 (5), 426-429.  
b. DUPUY D'UBY, 1947.—“Trois cas de filariose oculaire.” 50 (5), 433-435.  
c. COMBE, P., PROST, R. & RAFFI, A., 1947.—“Ascaridiose à forme hépatique chez un enfant de six ans. Mort subite après une transfusion.” [Abstract of paper presented to the Société de Pédiatrie d'Alger, June 23, 1947.] 50 (9/10), 709.

## 377—Amatus Lusitanus. Lisbon.

- a. BARROS, F., 1947.—“Sobre a existência de ancilostomíase por *Necator americanus* Stiles, 1902, na Ilha da Madeira.” 6 (1), 59-64. [English & French summaries p. 64.]

(377a) *Necator americanus* was diagnosed in two persons in the village of Serrado, Madeira. The source of the infection could not be determined. E.M.S.



## 378—American Fur Breeder.

- \*a. HERRICK, C. A., 1947.—“Parasites of fur animals.” 20 (3), 30, 32, 34.

## 379—American Heart Journal.

- a. SOLARZ, S. D., 1947.—“An electrocardiographic study of one hundred fourteen consecutive cases of trichinosis.” 34 (2), 230-240.

## 380—American Journal of Medical Technology.

- a. HITCHCOCK, D., 1947.—“Parasitological procedures for the medical technologist.” 13 (4), 169-174.  
 b. SUESSENGUTH, H., 1947.—“Improved antigen for the slide test for trichinosis.” 13 (5), 213-224.  
 c. CARLSON, B. G., 1947.—“Parasites encountered in the Amazon Valley.” 13 (5), 234-240.

(380b) An alkaline extract of lyophilized whole trichina larvae is used immediately in the preparation of the antigen emulsion for the slide test. There is practically no variation between different lots of antigen emulsion, and sensitivity is high with no loss of specificity. Positive reactions were obtained in swine as early as the 8th day and for at least 903 days. The test is recommended for routine use in slaughter swine. E.M.S.

(380c) Altogether 2,237 stool examinations were made from 1,246 patients in the Amazon valley, 300 of whom were Americans and 946 Brazilians. Helminthiasis in the Americans were diagnosed as follows: *Ascaris* in 11, *Necator americanus* in 2, *Trichuris* in 9; the Brazilians were infected as follows: *Ascaris* 266, *N. americanus* 99, *Strongyloides stercoralis* 56, *Taenia saginata* 1, *Trichuris* 225, *Enterobius* 1. “Footworm” [*Dracunculus medinensis*] was common in both groups; it was found coiled up under the skin of the foot, and is said to lay “hundreds of eggs”. E.M.S.

## 381—American Journal of Obstetrics and Gynecology.

- a. DEEDS, D. D., 1947.—“Migration of *Oxyuris vermicularis* to lymph node of round ligament.” 54 (5), 890-892.

(381a) A case is reported in which adult *Enterobius vermicularis* and eggs were found encapsulated in an enlarged lymph node on the round ligament. This parasite has not been previously noted in this site. R.T.L.

## 382—American Journal of Ophthalmology.

- a. ESTEBAN, M., 1947.—“Subretinal cysticercus.” [Abstract of paper presented to Sociedad Oftalmologica de Madrid, January 25, 1946.] 30 (1), 76. [Discussion p. 76.]

## 383—American Journal of Roentgenology and Radium Therapy.

- a. LOFSTROM, J. E. & KOCH, D. A., 1947.—“The diagnosis of ascaris infestation by serial roentgen examination of the small intestine.” 57 (4), 449-452.

## 384—American Practitioner. Philadelphia.

- a. BRADY, F. J., 1947.—“Pinworm infection and trichinosis.” 1 (11), 583-588.  
 b. WRIGHT, W. H., 1947.—“Treatment of some intestinal worm infections.” 1 (11), 589-590.

(384b) Anthelmintic treatment of hookworm disease is only partially corrective unless iron is also administered to combat the loss of haemoglobin. Magnesium citrate is less disagreeable than magnesium or sodium sulphate after tetrachlorethylene. Gastro-enteritis, alcoholism, chronic constipation and concomitant *Ascaris* infections are contra-indications for this drug. While oil of chenopodium is very effective for *Ascaris* it is probably responsible for more fatalities than any other anthelmintic. Hexylresorcinol as “Caprokol” pills is the drug of choice but should not be used when gastro-enteritis or peptic or duodenal ulcer is present. A survey of 450,000 individuals in seven southern



States of the U.S.A. has shown an incidence of 1.3% of *Hymenolepis nana*. This is less common in the northern regions although in rural Ohio it occurred in 5% of 220 persons examined. Neither carbon tetrachloride nor tetrachlorethylene is effective. Oleoresin of male fern or kamala may be used, but with considerable caution in very young children, and these drugs are contra-indicated in febrile conditions, chronic constipation, gastroenteritis, pregnancy, and in cardiac, hepatic and renal disorders. R.T.L.

### 385—American Professional Pharmacist.

- a. ANON., 1947.—“New drugs for filariasis.” 13 (7), 645-646.
- b. AUGUSTINE, D. L., 1947.—“Trichinosis.” 13 (11), 1015-1017.

(385a) A brief account is given of the discovery and properties of various new drugs active against adult filariae. (1-*amyl*-2,5-dimethyl-3-pyrrole) (1,6-dimethyl-2-quinoline) dimethinecyanine chloride, known as “Chemotherapy center No. 348” is effective in experimental animals at 0.1 mg. per kg. body-weight injected every 8 hours for 18 doses. *In vitro* concentrations of 1:25,000,000 to 1:6,000,000 inhibited the oxidative metabolism of adult filariae. This and other cyanine compounds are believed to act by inhibition of enzyme systems involved in the oxidative metabolism. Worms removed from rats treated with subcurative doses showed depressed respiration and increased aerobic glycolysis. The most effective of this group of compounds was No. 863, whose chemical name is 1'-ethyl-3,6-dimethyl-2-phenyl-4-pyrimido-2'-cyanine chloride. E.M.S.

### 386—Anais de Sociedade de Biologia de Pernambuco.

- a. LUCENA, D. T. DE, 1947.—“Mais um foco de schistosomíase mansoni em Alagoas comprovado pela descoberta de *Planorbis* infectados.” 7 (1), 37-42. [English summary pp. 41-42.]

(386a) Cercariae of *Schistosoma mansoni* were found in four of 564 *Australorbis glabratus olivaceus* dissected at Penedo, Alagoas, Brazil. It is considered probable that the infection is a new one as most of the infected snails were in contact with faeces of persons from known foci of infection. E.M.S.

### 387—Anales de la Facultad de Medicina de Montevideo.

- a. PRAT, D., CORREA, L. & ZERBONI, E., 1947.—“El halo cálcico. Signo de diagnóstico en los quistes hidatídicos del hígado y sobre la vía operatoria de abordaje en los grandes quistes de la cara superior y posterior del hígado.” 32 (7/8), 536-562.
- b. PRAT, D., CORREA, L. & VÁZQUEZ PIERA, L., 1947.—“Quiste hidatídico del epiplón gastroesplénico presentándose como un quiste de bazo.” 32 (7/8), 563-576.
- c. PRAT, D., 1947.—“Comunicación al Congreso de la Hidatidosis de Durazno, organizado por el Centro de Estudio y Profilaxis de la Hidatidosis del Uruguay.” 32 (7/8), 577-580.
- d. PRAT, D., 1947.—“Complicaciones y secuelas del quiste hidatídico. Es la hidatidosis una afección benigna como se la ha considerado hasta ahora?” 32 (7/8), 581-593.

### 388—Anales de la Facultad de Veterinaria. Montevideo.

- a. POU, M. C., 1947.—“Curso de parasitología veterinaria.” 5 (1), 7-74.
- b. POU, M. C. & RODRÍGUEZ GONZÁLEZ, M., 1947.—“Tratamiento de la dictiocaulosis ovina mediante la administración de antihelmínticos por la vía naso-laríngeo-traqueal.” 5 (1), 123-126.
- c. CRISTI, G. A. & AUYUANET, P., 1947.—“Bronconeumonía por *Aelurostrongylus abstrusus* en un felino. (Primer diagnóstico clínico en el Uruguay.)” 5 (1), 135-137.

(388b) Tests with methylene blue solution injected intratracheally into sheep, held in various positions, showed that the solution reached the diaphragmatic lobes of the lung better when the animal was held in the upright position, resting on the buttocks. E.M.S.

### 389—Anales del Instituto de Higiene de Montevideo.

- \*a. OSIMANI, J. J., 1947.—“Parasitismo humano por *Dipylidium caninum* (Linneo, 1758).” 1 (1), 129-134.



## 390—Anales de Medicina. Barcelona.

- a. PURSELL MÉNGUEZ, A. & LORENZO FERNÁNDEZ, T., 1947.—“Manifestaciones torácicas de los quistes hidatídicos de hígado.” 34 (392), 303-308.

## 391—Anales de la Sociedad Médico-Quirúrgica del Guayas.

- \*a. HEINERT, J. F., 1947.—“Paragonimiasis pulmonar o distomatosis pulmonar en el Ecuador.” 38, 1727-1738.

## 392—Anales de la Sociedad Mexicana de Oftalmología.

- a. PACHECO LUNA, R., 1947.—“Historia del descubrimiento de la oncocercosis en Guatemala.” 21 (4), 249-253. [English & French summaries pp. 252-253.]  
 b. MAZZOTTI, L., 1947.—“Parasitología de la oncocercosis.” 21 (4), 253-258. [English & French summaries pp. 257-258.]  
 c. VARGAS, L., 1947.—“Transmisión de la oncocercosis.” 21 (4), 258-264. [English & French summaries pp. 263-264.]  
 d. PUIG SOLANES, M., 1947.—“Nuevos datos estadísticos acerca de las alteraciones oculares oncocercosas.” 21 (4), 264-297. [English & French summaries pp. 296-297.]  
 e. OCHOTERENA, I., 1947.—“Síntesis de los estudios que he llevado a cabo relativos a la oncocercosis.” 21 (4), 298-309. [English & French summaries pp. 307-309.]  
 f. PUIG SOLANES, M., 1947.—“Gonioscopia en los enfermos oncocercosos.” 21 (4), 309-330. [English & French summaries pp. 328-330.]  
 g. TORRES ESTRADA, A., 1947.—“Presencia de la *Microfilaria volvulus* en el ojo humano y trastornos tisulares que en él produce.” 21 (4), 330-340. [English & French summaries pp. 339-340.]  
 h. BENÍTEZ SOTO, L., 1947.—“Nota sobre la frecuencia de la ceguera como complicación ocular en la oncocercosis.” 21 (4), 340-349. [English & French summaries pp. 344, 349.]  
 i. NETTEL FLORES, R., 1947.—“Observaciones en una jira a través de la zona donde prevalece la oncocercosis en Chiapas.” 21 (4), 349-353. [English & French summaries p. 353.]

(392a) As Dr. Rodolfo Robles was the first to report onchocerciasis in Guatemala, to associate the ocular symptoms with onchocerca nodules and to suggest simulids as the vector, Pacheco Luna proposes to name this infection “Robles’ disease”. R.T.L.

(392b) This is a brief summary of earlier work on the morphology of *Onchocerca* in man. Brumpt’s opinion that the American form (*O. caecutiens*) is a different species from *O. volvulus* is adopted. R.T.L.

(392c) In Central America, onchocerciasis in man is transmitted during the dry season, i.e. from autumn to spring. Torrential rains have an unfavourable effect on the simuliid vectors and the impact of sand has an abrasive action on their larvae. As prophylactics, Vargas recommends repellents such as “indalone”, “Rutgers 612” and dimethylphthalate, and the use of D.D.T. as a larvicide. R.T.L.

(392d) From a clinical study of 1,334 patients with ocular onchocerciasis in southern Mexico and western Guatemala, Puig Solanes concludes that ocular involvement is more frequent in men than in women and that the proximity of nodules to the eyes has no real influence on the ocular symptoms. R.T.L.

(392e) In 1930 Ochoterena first demonstrated the presence of microfilariae of *Onchocerca* in the Virchow-Robin spaces in the fundus of the eye, between the sclera and the choroidal membranes, in the iris and in the cornea. He now gives a detailed account of the pathology and histopathology of eye lesions produced by onchocerciasis in man. R.T.L.

(392h) Benítez Soto carried out a survey of Chiapas, examining 22,580 onchocerciasis patients, and found that 104 (0.46%) were blind, a very much lower incidence than is usually claimed. Ocular disturbances were noted in 8,083 cases (37.12%), a percentage much nearer the findings of other authors. The lesions included keratitis, conjunctivitis and scleritis, as well as iritis, cyclitis and choroiditis. E.M.S.

(392i) Nettel Flores made a journey through the forests of the onchocerciasis zone



of Chiapas, and studied the incidence of the disease in several families living in the forest. Among 110 cases observed, only 26 (23·63%) showed no ocular complications; 9 (8·18%) were blind. In general the eye lesions were very severe, and this is associated with the fact that many of these patients had not had onchocercal tumours surgically removed. E.M.S.

### 393—Anatomical Record.

- a. KIRKMAN, H., 1947.—“Intraepithelial granular cells in urinary tracts of rats infested with *Trichosomoides crassicauda*.” [Abstract of paper to be presented at the 60th Annual Meeting of the American Association of Anatomists, Montreal, April 3-5, 1947.] 99 (3), 349.
- †b. STUNKARD, H. W., 1947.—“Notes on the asexual stages of *Cryptocotyle lingua*.” 99 (4), 615.
- †c. WILLEY, C. H. & KOULISH, S., 1947.—“Gametogenesis in *Gorgoderina attenuata*.” 99 (4), 640-641.
- †d. WALTON, A. C., 1947.—“Parasites of the Ranidae (Amphibia). IV.” 99 (4), 684.
- †e. WALTON, A. C., 1947.—“Parasites of the Ranidae (Amphibia). V.” 99 (4), 684-685.
- †f. WALTON, A. C., 1947.—“Parasites of the Ranidae (Amphibia). VI.” 99 (4), 685.
- †g. BOYD, E. M., 1947.—“Starlings as non-distributors of ‘gapes’ in North America.” 99 (4), 686.

(393b) The miracidia of *Cryptocotyle lingua* do not hatch in water, but only after the eggs have been eaten by the snail *Littorina littorea*. P.A.C.

(393c) Willey & Koulish describe the process of spermatogenesis in *Gorgoderina attenuata*. The diploid chromosome number is 14 but they did not discover at what stage reduction to 7 occurs. P.A.C.

(393g) The starling appears to be unimportant in the distribution of gapeworm in America, for the parasite has not been found in this host although other birds are proven carriers. P.A.C.

### 394—Ankara Yüksek Ziraat Enstitüsü Dergisi.

- \*a. AKÇAY, Ş., 1947.—[Strongylosis among horses of the Turkish Army.] 7 (14), 393-406. [In Turkish.]

### 395—Annales Scientifiques de Franche-Comté. Besançon.

- a. BAER, J. G., 1947.—“Les helminthes parasites des vertébrés. Relations phylogéniques entre leur évolution et celle de leurs hôtes. Conséquences biologiques et médicales.” Année 2, pp. 99-113. [Discussion pp. 122-124.]
- b. BAER, J. G., 1947.—“Les cycles évolutifs des helminthes parasites.” Année 2, pp. 114-121. [Discussion pp. 122-124.]

(395a) Baer considers that parasitic specificity is a general biological problem born of a long-standing association between parasite and host, and independent of both the morphology and the systematics of the parasite. He gives many examples among the helminths and considers that there are two types of parasitic specificity. (i) Phylogenetic specificity is defined as that which exists where experimental infection of a host other than the normal one is impossible. This type is found in the cyclophyllid cestodes and probably the nematodes, and is the result of a very ancient adaptation. (ii) Ethological specificity is defined as that determined by the nature of the food of the host. This is found amongst the digenetic trematodes and is the result of a more recent adaptation. Phylogenetic specificity may be simulated by ethological specificity and the two types are frequently only distinguishable by experimental work. Baer considers that where the existence of phylogenetic specificity is incontestable it should be used in establishing a system of classification as nearly natural as possible. He cites several examples of the application of this theory and in particular shows how the affinities of some birds and mammals may be clarified by a study of their parasites. He also shows that Wegener's theory on the evolution of eels is contradicted by helminthological evidence. S.W.

† Abstract of paper to be presented at the 44th Annual Meeting of the American Society of Zoologists, Chicago, Ill., December 29-31, 1947.



(395b) Baer gives a short account of the early work on the life-cycles of helminth parasites. He observes that in every cycle there is one stage only which is capable of infecting the definitive host and transforming itself into the adult worm, and that this stage appears at a characteristic point in the cycle of each group of helminths. He describes briefly the typical life-cycles in trematodes, nematodes and cestodes, with special reference to their enormous fecundity and the various means whereby the number of potentially infective larvae from a single egg may be increased. He considers that our knowledge of the acanthocephalans is at present too slight to say more than that an intermediate host is necessary for development. Baer defines five types of life-cycles dependent on the number of intermediate hosts, and whether they are facultative or obligatory; the life-cycles may be lengthened by re-encapsulation and the production of mesocercariae as in some trematodes, or shortened by the appearance of neotenic larvae, or the precocious development of sexual organs in metacercariae. There appears to be a kind of determinism which governs the life-cycles and which shows itself in the narrowness of the relations which exist between the intermediate and definitive hosts.

S.W.

### 396—Annali di Radiologia Diagnostica.

- a. LINA, A., 1947.—"Considerazioni su di un caso di echinococcosi multiple. Contributo della stratigrafia." 19 (5/6), 368-375.

### 397—Annuario del Museo Zoologico della Università di Napoli.

- a. PALOMBI, A., 1947.—"Notizie elmintologiche. IX.—Nuovo rinvenimento di *Benedenia monticellii* (Parona & Perugia 1895) su *Mugil capito* Cuv. del lago Fusaro (Napoli)." Nuova serie, 7 (20), 6 pp.

(397a) Seven specimens of trematodes collected from the gills of *Mugil capito* proved on examination to belong to the doubtful species *Benedenia monticellii* imperfectly described by Parona & Perugia (1895). The validity of the species is thus established, and a detailed description is given.

E.M.S.

### 398—Antiseptic. Madras.

- a. BOSE, S., 1947.—"Ascariasis and children." 44 (8), 520-522.

### 399—Archives des Maladies de l'Appareil Digestif et des Maladies de la Nutrition.

- a. BERGERET, A., CAROLI, J. & HEPP, J., 1947.—"Sur trois observations de lendemains douloureux après la cholécystectomie: (a) calcul oublié; (b) ascariodiose biliaire; (c) douleur hépatique intraitable." 36 (5/6), 217-237.

### 400—Archivio Italiano di Anatomia e di Embriologia.

- a. BARIGOZZI, C., 1947.—"Struttura nucleare e differenziamento somatico." 52 (2), 83-135.

(400a) After describing the details of the development of the Malpighian tubules in various insect species, Barigozzi describes the cellular development in *Parascaris equorum*. The coelomic cells become hyperploid by non-contemporaneous divisions of the entire chromatic substance, while in the intestinal epithelial cells only the cytoplasm increases. A discussion follows of the significance of these findings in relation to the character of the nucleus in somatic cells. It is pointed out that during growth, polyploidy or hyperploidy may be produced by means of divisions of the whole nucleus, or of portions of it apart from certain stable and persistent elements. The diploid chromosome number is on that account not characteristic of all the somatic cells.

E.M.S.

### 401—Archivio Italiano di Chirurgia.

- a. ALIERI, F., 1947.—"Metastasi e recidive dell'echinococco cistico del fegato. Contributo clinico." 69 (4), 304-310.

## 402—Archivio Italiano delle Malattie dell'Apparato Digerente.

- \*a. FOTI, D. & JELMONI, G., 1947.—"Ascaridiosi chirurgica." 13, 390-404.

## 403—Archivos Brasileiros de Medicina.

- \*a. GOMES DE MORAES, R., 1947.—"Parasitismo humano pelo *Syngamus laryngeus*." 37 (3/4), 97-101.

## 404—Archivos del Colegio Médico de El Salvador. Salvador.

- \*a. MASFERRER, R. & CARRANZA A., A., 1947.—"Ascaridiosis masiva y miasis cavitaria; obstrucción laríngea por *Ascarides*." 1, 27-31.

## 405—Archivos Españoles de Urología.

- a. IPIÉNS LACASA, P., 1947.—"Equinococosis del riñón: algunas de las enseñanzas recogidas en veinte observaciones personales." 4 (2), 91-134.

## 406—Archivos de Pediatría del Uruguay.

- a. PISCOTANO, V., 1947.—"Infestación humana por *Dipylidium caninum*." 18 (12), 643-645.

## 407—Archivos de la Sociedad Argentina de Anatomía Normal y Patológica.

- a. CID, J. M., 1947.—"Granuloma tuberculoide y gomoide peritoneal por *Fasciola errática*." 9 (3), 389-401.

## 408—Archivos de la Sociedad Oftalmológica Hispano-Americana. Madrid.

- a. SÁNCHEZ MOSQUERA, M., 1947.—"Consideraciones sobre un caso de cisticerco endocular." 7 (3), 234-244. [Discussion pp. 244-246.]  
b. DÍAZ GÓMEZ, E. & MARÍN AMAT, M., 1947.—"Dos casos de pseudoneoplasias de la órbita. Uno de tipo inflamatorio y el otro de quiste hidatídico.—Operación.—Curación. (Con presentación de enfermos)." 7 (9), 899-907. [Discussion pp. 907-908.]

## 409—Archivos Uruguayos de Medicina, Cirugía y Especialidades.

- a. RÍOS, B., 1947.—"Quiste hidatídico en botón de camisa tóraco-parietal." 30 (5), 474-482.  
b. AMARGÓS, A., ARMAND UGÓN, C. V., LARGHERO, P. & BELLO, R. DI, 1947.—"Tres casos de equinococosis cardiopericárdica operados." 30 (5), 483-528. [Discussion p. 528.]  
c. ARMAND UGÓN, C. V., VICTORICA, A., SUÁREZ, H. & MARCALAIN, R., 1947.—"La lobectomía en el tratamiento de las secuelas del quiste hidatídico del pulmón." 30 (6), 640-669.  
d. SUÁREZ MELÉNDEZ, J., 1947.—"Quiste hidatídico calcificado de hígado. Formas fistulizadas." 31 (3), 157-162. [Discussion pp. 162-163.]  
e. VIGIL, E., PIÑEYRÚA, J. & DIEZ, R., 1947.—"Hidatidosis cardiopericárdica." 31 (4), 249-260.

## 410—Archiwum Hydrobiologii i Rybactwa.

- a. GRABDA, E., 1947.—"O budowie i powstawaniu cysty u przywry *Nematobothrium sardae* G. A. et W. G. MacCallum 1916 (Didymozoonidae) ze skrzel *Sarda sarda* Bloch z Morza Czarnego." 13, 165-179. [In Polish: French summary pp. 174-176.]

(410a) Grabda examined 70 specimens of *Sarda sarda* from the Black Sea, of which 64.8% were infected with cysts of *Nematobothrium sardae* on the gills. The structure and formation of the cysts are redescribed. This is the first record of the parasite outside North America. [See also No. 670a below.]

C.R.

## 411—Arquivos de Higiene e Saúde Pública. São Paulo.

- a. OLIVEIRA, G. G. DE, 1947.—"Toxemias pseudo-gravídicas e parasitoses intestinais." 12 (31/34), 107-114.

(411a) De Oliveira observed, in patients at a pre-natal clinic, that where certain symptoms commonly associated with pregnancy, such as mild albuminuria, hydraemia, or a degree of anaemia, occurred in pregnant women who were also infected with *Ascaris*

or hookworm, these symptoms were due to the parasites and not to the pregnancy, and disappeared after anthelmintic treatment. Notes are given on 15 such cases treated with hexylresorcinol.

E.M.S.

#### 412—Arquivos do Instituto de Biologia do Exército. Rio de Janeiro.

- \*a. MOLLER MEIRELLES, M., 1947.—“Contribuição ao estudo das verminoses na guarnição do Rio de Janeiro.” 8 (8), 8–16.

#### 413—Arquivos de Neuro-Psiquiatria. São Paulo.

- a. BROTTTO, W., 1947.—“Aspectos neurológicos da cisticercose.” 5 (3), 258–294. [English summary p. 294.]

(413a) Cysticerciasis was diagnosed 45 times among 12,361 patients of the neurologic clinic, São Paulo Medical School. Of these, 39 had cerebral localizations, 6 subcutaneous with evidence of brain injury in 5, and only one intra-orbital localization. The clinical findings are described and discussed.

E.M.S.

#### 414—Arquivos de Patologia. Lisbon.

- \*a. SILVA LEITÃO, J. L., 1947.—“Estudos sobre equinococose. A parasitose em Portugal : sua extensão e importancia.” 19 (3), 265–375.

#### 415—Arquivos da Universidade da Bahia Faculdade de Medicina.

- \*a. SÁ OLIVEIRA, E. DE, 1947.—“Esquistosomose e estado elefantino (ligeiras considerações sôbre um caso de estado elefantíaco das bôlsas com a presença de ovos de esquistósomo).” 2, 63–72.  
\*b. SERRAVALLE, A., 1947.—“Helmintoses ; índices de infestação na Bahia.” 2, 141–143.

#### 416—Asiatic Review. London.

- a. SCOTT, J. C., 1947.—“Composting : a contribution to China's health.” 43, 79–82.

(416a) Investigation of the stools of farm families in North China showed that 80% of the men, 90% of the women and all the children were infected with *Ascaris lumbricoides*, with an average of 15 worms per person. In the cities the incidence was somewhat lower. Fermentation processes produced by the stacking of human faeces in layers with straw raised the temperature high enough to kill practically all pathogenic bacteria, eggs of parasitic worms and cysts of amoebae. If the stacks were turned at intervals composting was generally complete by the end of two months.

R.T.L.

#### 417—Berliner und Münchener Tierärztliche Wochenschrift.

- a. JACOB, E., 1947.—“Zur Pathogenität von *Trichuris myocastoris*, dem Peitschenwurm des Sumpfbibers (Nutria).” Year 1947, No. 2, p. 19.  
b. JACOB, E., 1947.—“Neue Funde des seltenen Trematoden *Ityogonimus lorum* als Erreger einer angeblichen ‘Maulwurfs-Seuche’.” Year 1947, No. 2, p. 19.  
\*c. JACOB, E., 1947.—“Parasitologische Notizen.” Year 1947, pp. 119–120.  
\*d. HAGEN, K., 1947.—“Zum Trichinenproblem.” Year 1947, No. 11, pp. 146–148.

(417a) Jacob reports a heavy infection with *Trichuris myocastoris* in the nutria [*Myocastor coypus*]. The parasite showed a considerable pathogenicity, and had produced haemorrhagic inflammation of the caecum and the whole of the large intestine.

E.M.S.

(417b) Jacob found the trematode *Ityogonimus lorum* in three moles with a haemorrhagic enteritis due to the presence of the parasites.

E.M.S.

(417c) In a goat with a heavy worm burden, phenothiazine at the rate of 2 gm. per kg. body-weight, divided into three daily doses, gave good results. [From an abstract in *Monatsh. Vet.-Med.*, 1948, 3 (7), 138.]

E.M.S.



(417d) The best defence against *Trichinella* infection in man is the thorough cooking of all pig flesh : since this cannot be guaranteed, official inspection of all meat which could be infected is essential. Hagen does not consider that immunological tests (skin reaction, complement fixation and precipitation) can yet be looked upon as reliable. He recommends periodical examination of piggeries to detect possible carriers [the abstract gives no information as to how this is to be done]. The view that *Trichinella* can be transmitted at the intestinal stage is supported by the fact that practically all hosts are omnivorous and could easily pick up the "intestinal" worms. [From an abstract in *Monatsh. Vet.-Med.*, 1948, 3 (9), 176.]

A.E.F.

## 418—Biochemical Journal.

- a. COXON, R. V., LATNER, A. L. & KING, E. J., 1947.—"The estimation of miracid in urine." [Abstract.] 41 (2), Proceedings p. xxx.

## 419—Biological Bulletin.

- a. VON BRAND, T., 1947.—"Physiological observations upon a larval *Eustrongylides*. XI. Influence of oxygen tension on the aerobic and post-anaerobic oxygen consumption." 92 (2), 162-166.

(419a) Experiments are recounted which show that the oxygen consumption of larval *Eustrongylides ignotus* depends more on oxygen tension at high than at low temperature. The post-anaerobic oxygen consumption was more dependent on the tension than the respiration of larvae previously exposed to well oxygenated surroundings when the experiments were made at equal temperatures. When the intensity of the oxygen consumption was equal at a tension of 760 mm. mercury this difference almost completely disappeared. Von Brand discusses the bearing of these results on the controversy between Harnisch and von Buddenbrock. Unlike *Ascaris* the larvae of *E. ignotus* are not killed by exposure for six hours to pure oxygen.

R.T.L.

## 420—Biometrics. Raleigh, N. C.

- a. EMIK, L. O., 1947.—"Statistical treatment of counts of trichostrongylid eggs." 3 (2), 89-93.

(420a) Emik describes the statistical treatment of duplicate dilution-counts of trichostrongyle eggs made daily for 20 days on the faeces of 12 lambs. The untransformed duplicates are shown to agree closely with the Poisson distribution. After square-root transformation, analysis of variance is possible into sheep, days, and the (sheep × day) interaction appropriate for experimental error. [The treatment of time as an independent variate in such cases has since been criticized by Leech ; for abstract see Helm. Abs., Vol. 19, No. 25c.]

B.G.P.

## 421—Boletim Geral de Medicina. Nova Goa.

- a. PACHECO DE FIGUEIREDO, J. M., 1947.—"A carência alimentar e a parasitose intestinal (anquilostomíase e amebíase) no determinismo da úlcera duodenal. (Contribuição para o estudo de patologia regional)." 29 (1/12), 27-42.

## 422—Boletim da Secretaria da Agricultura, Indústria e Comércio. Pernambuco.

- \*a. MACHADO, A. A., 1947.—"Sobre a ocorrência do 'anel vermelho' no Estado da Paraíba." 14 (1), 140-143.  
 b. BATISTA, A. C. & CARNEIRO, H., 1947.—"DD como nematocida, para a horticultura." 14 (2), 147-157. [English summary pp. 156-157.]  
 c. DIAS, A., 1947.—"Considerações críticas sobre o ensino da zoologia superior nas escolas de agrônoma. As verminoses no Brasil e as condições sanitárias do homem rural." 14 (4), 373-380.

(422b) Batista & Carneiro report on the use of D-D mixture against *Heterodera marioni* in horticultural land, using okra as a test crop. The D-D was used at 0, 200 and 300 lb. per acre in six randomized blocks, giving 18 plots each 6 m. × 2 m. Both height and weight of crop, analysed statistically, showed highly significant increases from the

use of 300 lb. and non-significant increases from the use of 200 lb. per acre. Based on gall counts, the percentage kill was 100% at 300 lb. per acre and 60% at 200 lb. per acre. The okra was sown 15 days after injection.

B.G.P.

#### 423—Boletín de la Oficina Sanitaria Panamericana.

- a. NEGhme R., A., ET AL., 1947.—"Brote epidémico de triquinosis en la Escuela Militar de Chile." 26 (11/12), 921-935. [English summary p. 935.]
- b. ANDERSON, H., 1947.—"Quimioterapia de las enfermedades parasitarias." [Summary of lecture delivered in the School of Medicine of the University of California, December 1946.] 26 (11/12), 957-959.

(423a) [A similar article appeared in *Rev. méd. Chile*, 1947, 75 (8), 519-524. For abstract see *Helm. Abs.*, 16, No. 318a.]

#### 424—Boletín de Patología Vegetal y Entomología Agrícola, Madrid.

- a. BENLLOCH, M., 1947.—"Un caso grave de anguillulosis del trigo, *Anguillulina tritici* (Steinbuch)." 15, 117-124.

(424a) Benlloch reports the occurrence of the wheat gall nematode, *Anguillulina tritici*, at two different centres of infestation in the province of Lérida, Spain. He describes and figures severe symptoms of attack produced in the affected plants, gives details of the life-history of the parasite, lists its hosts and briefly indicates control measures. T.G.

#### 425—Boletín de Sanidad. Quito.

- a. LEÓN, L. A., 1947.—"La raillietinosis es una endemia en el Ecuador. Nuevo aporte al conocimiento de la *Raillietina* (*Raillietina*) *equatoriensis*." 3 (1/2), 41-49.

(425a) León gives an account of raillietiniasis in Ecuador and redescribes in detail *Raillietina* (*R.*) *equatoriensis* Dollfus, 1939. Six or seven species are said to be harboured by man in Ecuador, where they give rise to gastro-intestinal and nervous symptoms and disturbance of the circulatory system; both adults and children are subject to the infection, which does not discriminate between members of different races. J.J.C.B.

#### 426—Boletín de la Sociedad de Cirugía de Chile.

- \*a. ESTÉVEZ, R., 1947.—"Consideraciones generales sobre el diagnóstico y tratamiento del quiste hidatídico pulmonar (nueva serie de observaciones)." 25, 160-176.

#### 427—Boletín de la Sociedad de Cirugía del Uruguay.

- \*a. ARMAND UGÓN, C. V., 1947.—"Técnica de la extirpación del quiste hidático del pulmón." 18 (2), 167-183.
- \*b. CAMPO, J. C. DEL & LASNIER, E. P., 1947.—"Equinococosis pulmonar; retención seca de membrana; lobectomía parcial." 18, 330-358.
- \*c. ARMAND UGÓN, C. V., VICTORICA, A. & SUÁREZ, H., 1947.—"Neumonectomía por hidatidosis pleuro-pulmonar masiva." 18, 367-380.
- \*d. LARGHERO YBARZ, P. & FERREIRA BERRUTI, P., 1947.—"Pionemoquiste y pionemotórax hidático sofocante." 18, 450-454.

#### 428—Boletines y Trabajos. Academia Argentina de Cirugía.

- a. BELLEVILLE, G. I., 1947.—"Presentación de pieza anatómica. Hidatidosis peritoneal múltiple." 31 (10), 361-362. [Discussion pp. 362-364; (11), 367-371; (12), 405-408.]
- b. ALLENDE, J. M. & LANGER, L., 1947.—"Tratamiento de los quistes hidatídicos del pulmón." 31 (15), 536-540. [Discussion part 16, pp. 549-550.]
- c. BREA, M. M., 1947.—"Resecciones pulmonares por hidatidosis." 31 (17), 610-611.
- d. BELLEVILLE, G. I., 1947.—"Presentación de radiografías y pieza anatómica. Hidatidosis múltiple." 31 (17), 611-613. [Discussion pp. 613-614.]
- e. BREA, M. M., 1947.—"Presentación de radiografías. Lobectomía por hidatidosis pulmonar." 31 (19), 691-692.



- f. CASIRAGHI, J. C., 1947.—"Quistes hidatídicos retrovesicales." 31 (20), 700-716. [Discussion pp. 716-721; (22), 760-761; (23), 785-790; (24), 815-817.]
- g. BIDART MALBRÁN, J. C. & GALARCE, J., 1947.—"Quiste hidatídico complicado del pulmón. Lobectomy." 31 (21), 730-737.
- h. MAZZINI, O. F., 1947.—"Quiste hidatídico de hígado. (Error de diagnóstico)." 31 (25), 861-865.

#### 429—Boletines y Trabajos. Sociedad Argentina de Cirujanos.

- \*a. MARRUGAT, O. L., 1947.—"Hidatidosis muscular." 8 (2), 57-62.
- \*b. CASIRAGHI, J. C., 1947.—"Equinocosis abdominal múltiple; terapéutica biológica." 8 (2), 63.
- \*c. CALCAGNO, B. N. & CASIRAGHI, J. C., 1947.—"Supuración perivesicular en el quiste hidatídico del pulmón." 8, 432-435.
- \*d. VACCAREZZA, O. A., 1947.—"Orientación actual en el tratamiento quirúrgico de los quistes hidatídicos del pulmón." 8, 906-917.

#### 430—Bollettino della Società Italiana di Medicina e Igiene Tropicale (Sezione Eritrea).

- a. PELLEGRINI, D., 1947.—"Il *Cysticercus dromedarii* n.sp. nel cammello e relativa cisticercosi." 7 (3/4), 317-324. [English summary p. 323.]
- b. ANGELOTTI, S., 1947.—"Contributo casistico sul *Cist. dromedarii* Pellegrini, 1945." 7 (5/6), 544-549. [English summary p. 549.]
- c. PELLEGRINI, D., 1947.—"Il *Cysticercus dromedarii* Pellegrini, 1945 nel bovino." 7 (5/6), 550-553. [English summary p. 553.]
- d. PELLEGRINI, D., 1947.—"Il *Cysticercus dromedarii* Pellegrini, 1945, è lo stato larvale della *Taenia hyaenea*, Baer, 1927. Identificazione morfologica e sperimentale." 7 (5/6), 554-565. [English summary p. 564.]
- e. PELLEGRINI, D., 1947.—"Nel bovino la sede di predilezione del *C. dromedarii* Pellegrini, 1945, è nei gangli mesenterici." 7 (5/6), 566-572. [English summary p. 571.]

(430a) In Somaliland about 23% of the camels are infected with a cysticercus which Pellegrini names *Cysticercus dromedarii* n.sp. [= *Cysticercus dromedarius* Pellegrini, 1945—see Helm. Abs., 14, No. 554a.] The scolex carries two rows of hooks numbering between 36 and 44. The larger hooks measure  $187\mu$  to  $212\mu$ , the smaller hooks  $112\mu$  to  $137\mu$ . The cysts occurred chiefly in the liver but were also present in the heart, masseters, tongue, cervical muscles and lungs. Attempts to infect four dogs experimentally proved negative.

R.T.L.

(430b) At Kisimayu 24.5% of 835 camels and 1.5% of 634 cattle, examined between April 1945 and September 1946 at the slaughter house, were found to be infected with *Cysticercus dromedarius*. At the Merca abattoir the incidence in 642 camels was 23%. The most frequently infected organ in cattle was the brain.

R.T.L.

(430c) *Cysticercus dromedarius*, previously reported from the camel by Pellegrini, is now recorded from 5 out of 1,039 bovines. As *C. dromedarius* is not infective to man, the importance of a correct diagnosis at meat inspection is stressed.

R.T.L.

(430d) An examination of wild animals in Somaliland showed that the hyaena was infected with a taenia which possessed an armed scolex similar to that of *Cysticercus dromedarius*. Fifty-seven adult tapeworms were recovered from a hyaena held in captivity and fed with many *Cysticercus dromedarius*. Ripe segments of this tapeworm were administered to six bovines and two camels but without satisfactory results. Although a comparison of the adults with the description of *Taenia hyaenae* Baer, 1927 showed some morphological differences, Pellegrini considered that these were not of specific significance.

R.T.L.

(430e) *Cysticercus dromedarius* occurred in the mesenteric lymph nodes of 117 of the 1,274 bovines slaughtered between September 1945 and August 1946 at Merca in Somaliland. This gives an infection rate of 9.18%, as compared with rates of 0.42% and 1.5% recorded in previous surveys when the mesenteric lymph nodes were not examined.

R.T.L.



## 431—Brasil-Medico.

- a. PORTELA, B., 1947.—“Considerações sobre a esquistosomose.” 61 (40/41), 352-356.

## 432—British Journal of Surgery.

- a. MILLER, D. & DOWLING, J. L., 1947.—“Orbital hydatid.” 35 (138), 211-212.

## 433—Bulletin. Connecticut Agricultural Experiment Station.

- a. ANDERSON, P. J. & SWANBACK, T. R., 1947.—“Root nematodes.” No. 504, pp. 19-23.

(433a) In this report from the Tobacco Substation at Windsor, Anderson & Swanback indicate that *Heterodera marioni* was found on tobacco roots for the first time in Connecticut in 1946. In an area of several acres of very stunted shade-grown tobacco it was found that the plants had many small galls on the roots caused by this parasite. They give a brief account of the structure and life-history of the nematode and discuss three possible methods of control: (i) crop rotation, (ii) development of resistant strains, (iii) treatment of soil with chemicals lethal to the pest. Some plants from the affected areas were also found to be infested by the meadow nematode, *Pratylenchus pratensis*. T.G.

## 434—Bulletin Médical de l'Afrique Occidentale Française.

- a. DEJOU, L., 1947.—“Kystes suppurés et abcès chroniques par vers de Guinée.” 4 (2), 121-123.  
 b. BERGERET, C., 1947.—“Quelques réflexions sur l'ankylostomiase.” 4 (2), 159-166.  
 c. LAPEYSSONNIE, L., 1947.—“Un cas d'asthme d'origine ascaridienne.” 4 (3), 211-214.

## 435—Bulletins et Mémoires de la Société de Chirurgie de Marseille.

- \*a. SANTY, P. & BÉRARD, 1947.—“Séquelles de kystes hydatiques du poumon évacuées par vomiques.” 20 (5/6), 210-216.

## 436—Bulletins et Mémoires de la Société Française d'Ophtalmologie.

- a. APPELMANS, M., 1947.—“Diagnostic et traitement de l'onchocercose.” 60, 293-303. [Discussion p. 303.]

## 437—Bulletin et Mémoires de la Société Médicale des Hôpitaux de Paris.

- a. THIODET, J., 1947.—“Manifestation rétrograde de la réaction de Casoni.” 4e Série, 63 (19/20), 467-468.  
 b. BERTRAND-FONTAINE, GOUTNER & NOUFFLARD, H., 1947.—“Deux cas de syndrome de Loeffler à forme multinodulaire d'origine ascaridienne.” 63 (23/25), 700-707.

(437a) Two patients with pulmonary hydatid, and with a strong Casoni reaction, evacuated their cysts by vomiting. In each of them, the complete Casoni reaction reappeared spontaneously at the site of the original test, in one case three years later on the occasion of a haemoptysis from a new cyst, and in the other case during transient fever recurring at intervals of 6-10 days. Thiodet discusses the possible explanation of these “retrograde” reactions. E.M.S.

## 438—[Bulletin Mensuel.] Société de Médecine Militaire Française.

- \*a. RACHOU & GUYOMACH, 1947.—“Notes sur un cas d'ascaridiose avec réaction méningée.” 41 (4), 105.  
 \*b. MICHARD & AULONG, 1947.—“A propos d'un kyste hydatique du rein.” 41 (6), 158-160.

## 439—Bulletin. New Zealand Department of Agriculture.

- \*a. ANON., 1947.—“Internal parasites in poultry.” No. 19, 7 pp.  
 b. WHITTEN, L. K., 1947.—“Hydatid disease, a scourge of man and animal which can be eradicated.” No. 272, 16 pp.  
 c. WHITTEN, L. K., 1947.—“Prevention of hydatids.” No. 278, 11 pp.

(439c) [This article is reprinted from *N.Z. J. Agric.*, 1946, 73 (2), 97, 99, 101-103. For abstract see *Helm. Abs.*, 15, No. 122c.]

## 440—Bulletin der Schweizerischen Akademie der Medizinischen Wissenschaften.

- a. BONSDORFF, B. VON, 1947.—“Die Pathogenese der perniziösen Wurmanämie im Lichte neuerer Erfahrungen.” 3 (2/3), 119-137. [English, French & Italian summaries pp. 134-137.]

(440a) The view previously maintained by most research workers that the pernicious anaemia associated with *Diphyllobothrium latum* infection is due to toxic or allergeo-toxic action produced by this tapeworm is shown to be unsatisfactory. By intestinal intubation it has been shown that in anaemic cases the tapeworm is found in the jejunum whereas in non-anaemic infected persons it is much lower down. When the worm is driven out of the upper portion of the small intestine the symptoms abate. Only when located in the commencement of the small intestine can the tapeworm interfere in the reaction between the “intrinsic” and “extrinsic” factors. Variations in the quantities of these two factors must also be considered.

R.T.L.

## 441—Bulletin de la Société Zoologique de France.

- a. DORIER, A., 1947.—“*Phasgonura* (*Locusta*) *viridissima* (L.) hôte de *Gordius albopunctatus* G. W. Müller.” Year 1946, 71 (4/5), 207-210.

(441a) Although the presence of a *Gordius* in *Phasgonura viridissima* has been known since 1847, its specific identity has not been clearly established. Dorier now gives a detailed description which has enabled him to refer it to *Gordius albopunctatus*.

R.T.L.

## 442—Bulletin. University of Florida Agricultural Experiment Station.

- a. TOWNSEND, G. R. & RUEHLE, G. D., 1947.—“Diseases of beans in southern Florida.” No. 439, 56 pp. [Revised.]

(442a) Townsend & Ruehle state that root-knot disease (*Heterodera marioni*) is occasionally a problem in some of the 80,000 acres devoted to snap beans in Florida, no resistant varieties being yet available. After describing the life-cycle of the parasite and the symptoms it produces, they point out that at soil temperatures at or below 72°F. only one generation occurs during the six to seven weeks' growth-period of the crop, and plants are not seriously affected. At 80°F. or higher two generations of the parasite may occur, resulting in severe damage and even death. Reinfestation of Florida soils is too rapid to justify chemical treatments, and control consists in growing beans only from December to March, followed by a well cultivated fallow in April and May and a resistant cover crop in summer. In severe cases the cultivated fallow must extend from March to November, with no susceptible crops that winter.

B.G.P.

## 443—Cahiers Médicaux de l'Union Française. Algiers.

- a. MARILL, F. G., 1947.—“La bilharziose vésicale en Algérie. Programme de prophylaxie.” 2 (14), 677-691.

(443a) Marill discourses upon urinary schistosomiasis in Algiers, and enumerates the known foci of the disease and the sources outside the country whence it may be introduced. He describes the conditions which favour the spread of the disease, with reference to the presence of suitable snail vectors and the irrigation systems. Control measures would comprise exclusion at frontier posts of infected persons, treatment of the local population, and the eradication and control of snails, chiefly by engineering methods which would facilitate the drying of canals, and to a lesser extent by the use of copper salts.

J.J.C.B.

## 444—California Wool Grower.

- \*a. SCHWARTZ, B., 1947.—“Sheep parasite research in retrospect and prospect. Diseases and ailments of sheep caused by animal parasites are of major importance.” 23 (6), 6-7.

**445—Canadian Medical Association Journal.**

- a. WILLIAMS, T. H., 1947.—“Intestinal parasites found in survey of repatriated Hongkong P.O.W.” 56 (6), 630-633. [French summary p. 633.]
- b. WILLIAMS, T. H., 1947.—“A case of schistosomiasis in Manitoba.” 57 (1), 60-62.

(445a) Of the 553 men of the Winnipeg Grenadiers who were prisoners-of-war in camps in Japan and Hong Kong, 35% were found to have *Ascaris lumbricoides*, 21% had *Trichuris trichiura*, 2.5% had hookworm, 0.2% had *Trichostrongylus colubrifomis*, and 0.2% had *Enterobius vermicularis*, as shown by microscopical examination of the faeces. R.T.L.

**446—Cancer Research. Philadelphia.**

- a. AFIFI, M. A., 1947.—“Cancer mortality in Egypt.” 7 (8), 537-546.

(446a) Afifi considers that the apparent connection between schistosomiasis in Egypt and cancer of the liver and bladder has still to be proven, and that until an aetiological connection has been shown, the term “bilharzial cancer” should be avoided. E.M.S.

**447—Chacra. Revista Mensual de Agricultura, Ganadería e Industrias Anexas. Buenos Aires.**

- \*a. SIMONPIETRI, R. H., 1947.—“La cisticercosis hepática es una grave enfermedad parasitaria.” 17 (202), 16, 110.

**448—Chirurg. Berlin.**

- a. KOS, E., 1947.—“Über einen seltenen Fall von Dünndarmperforationen durch Ascariden.” Year 1946-47, 17-18 (13), 614-615.

**449—Ciencia. Mexico.**

- a. BOLÍVAR PIELTAIN, C., 1947.—“Empleo del Bayer 205 como tratamiento de la oncocercosis.” 8 (4/5), 127-128.

(449a) Bolívar Pieltain gives an account of a lecture delivered at a conference in the Instituto de Salubridad y Enfermedades Tropicales by Dr. Louis van den Berghe of Belgium, on the use of Bayer 205 [Antrypol] in onchocerciasis. The dose recommended was 1.0 gm. twice a week up to a total dose of 5.0 gm. E.M.S.

**450—Clinica Nuova. Rome.**

- a. RUGGIERI, E., 1947.—“Un caso di ascaridiosi delle vie urinarie.” 4 (3), 150-152.

**451—Clinical Proceedings of the Children's Hospital, Washington, D.C.**

- a. CLARK, H., 1947.—“Loeffler's syndrome associated with *Ascaris lumbricoides*.” 3 (3), 59-66.
- b. AYRES, F., 1947.—“Fatality due to ascariasis.” 3 (3), 72-75.

**452—Clinical Reports of the Adelaide Children's Hospital.**

- \*a. JOLLY, W. W., 1947.—“Hydatid cysts of lung.” 1, 48-54.

**453—Comunicaciones Zoológicas del Museo de Historia Natural de Montevideo.**

- a. DIONI, W., 1947.—“*Gorgoderina chilensis* n.sp., tremátodo de la vejiga urinaria del sapito vaquero, *Rhinoderma darwini* D.B.” 2 (39), 11 pp.

(453a) Dioni describes and illustrates *Gorgoderina chilensis* n.sp. from the urinary bladder of *Rhinoderma darwini* in the province of Valdivia, Chile. The species falls into the subgenus *Neogorgoderina*, the characters distinguishing it from other species of the subgenus including the median genital pore, the entire testes and the oblong shape of the ovary. A key is given for the separation of the 20 species of *Gorgoderina* considered as valid by the author, comprising one European, one Indian, one North African, 5 South American and 15 North American. *G. diaster* and *G. permagna* are considered as species inquirendae. E.M.S.



## 454—Concours Médical.

- \*a. FASSIO, 1947.—"Kyste hydatique suppuré du foie, se présentant sous l'aspect d'une hépatomégalie fébrile géante, avec double migration ultérieure, pleurale, puis vésiculaire, guérison parfaite, se maintenant depuis trois ans." 69 (15), 635.

## 455—Criação e Veterinária. Porto Alegre.

- a. ANON., 1947.—"Ascariose—*Ascaris lumbricoides* L. 1758." 2 (2), 51.
- b. ANON., 1947.—"Capilarioses (*Capillaria* spp.)." 2 (2), 54.
- c. ANON., 1947.—"Fasciolose—o saguaypée. *Fasciola hepatica* (L., 1758)." 2 (3), 86.
- d. CARVALHO, J., 1947.—"Parasitismo." 2 (4), 105.
- e. ANON., 1947.—"Esofagostomos—*Oesophagostomum* spp." 2 (4), 107.
- f. ANON., 1947.—"Um meio de combater a verminose dos carneiros." 2 (11), 213.

## 456—Défense Agricole de la Beauce et du Perche.

- \*a. CHARON, A. J., 1947.—"L'iode et la gastrite vermineuse des moutons et des chèvres." 44, 188.

## 457—Deutsche Gesundheitswesen.

- a. LEBINSKI, G. VON, 1947.—"Über Thional, ein neues Mittel zur Bekämpfung der Oxyuriasis." 2 (3), 104-106. [English, French & Russian summaries p. 106.]

(457a) Lebinski reports the successful application of "Thional" (effective components: the sulphur preparation "Thiodyl" Borchers, zinc oxide, boric acid, and an ointment base) as an anal salve in the treatment of enterobiasis. A total of 15 children and 6 adults were treated, usually by a single daily application into the anus and on the peri-anal region just before going to bed. Pruritus ani was greatly reduced, the general condition improved, and even on the morning following the first application many dead worms were recovered from the anus. Usually no more worms were present after 14 days' treatment. In the case of two adults, treatment was combined with garlic enemas. A.E.F.

## 458—Deutsche Medizinische Rundschau.

- a. SCHEID, G. & MENDHEIM, H., 1947.—"Ist eine Diagnose der Oxyuriasis durch Nagelschmutz-Untersuchung möglich?" 1 (12), 441-442.

(458a) Scheid & Mendheim examined one anal swab and one specimen of fingernail dirt from each of 182 children at a clinic, 134 (73.6%) of whom were known to be infected with *Enterobius*. The swab gave 125 (68.7%), the fingernail specimens 31 (16.8%) positive. Only two of 99 children living in a home had eggs under their fingernails, although 81 were infected. The authors conclude that *Enterobius* infection cannot be reliably diagnosed by examination of the fingernails. A.E.F.

## 459—Deutsche Medizinische Wochenschrift.

- a. FISCHER, L., 1947.—"Zur röntgenologischen Darstellung des Ascaris." 72 (19/20), 262-263.
- b. SCHUBERT, R., 1947.—"Die Vielgestaltigkeit des Askariasis-symptomenbildes unter besonderer Berücksichtigung der Askariasis der Gallenwege, Leber und des Pankreas und deren Therapie." 72 (29/30), 410-417.
- c. ZYLKA, N., 1947.—"Ein Beitrag zur Askariasis als chirurgische Erkrankung." 72 (29/30), 417-418.
- d. BONHAG, H., 1947.—"Die Bedeutung der Askarideninfektion für die heutige Zeit." 72 (29/30), 418-421.
- e. HENI, F., THEDERING, F. & RIETHMÜLLER, H. U., 1947.—"Die flüchtigen eosinophilen Lungeninfiltrate." 72 (29/30), 421-426.
- f. WIGAND, R., 1947.—"Über die Rolle der Diätetik in Wurmkuren. Klinisch-parasitologische Beobachtungen X." 72 (29/30), 426-428.
- g. SCHUBERT, R., 1947.—"Massnahmen zur Vermeidung der Askarideninfektion." 72 (35/36), 520.

(459e) Heni *et al.* saw 56 cases of Loeffler's syndrome during 1939 to 1947, 40 of them in the year 1946 to 1947. Clinical study of 32 of these cases revealed a developing *Ascaris* infection in 25 (78%), demonstrated in three ways, viz., (i) stool negative during

syndrome, but positive at the earliest 58-76 days later (allowing 10 days for incubation period); (ii) stool positive during syndrome, but worms of different ages recovered at anthelmintic treatment 40 days later; (iii) stool remaining negative, but male worms recoverable by anthelmintic treatment (oil of chenopodium or ascaridol). Heni *et al.* consider that transient eosinophilic pulmonary infiltration is nearly always due to migrating ascaris larvae.

E.M.S.

(459g) Schubert considers that consumption of raw vegetables and salads is the chief source of *Ascaris* infection in man. He deals briefly with some of the measures which should reduce the risk of infection: human faeces should not be used as manure; care should be taken to avoid transporting *Ascaris* eggs on dirty hands or on footwear; vegetables to be eaten raw should be submerged in hot water (at 70°C. for one second or at 55°C. for 55 seconds) or in hypertonic saline solutions.

A.E.F.

#### 460—Día Médico. Buenos Aires.

- a. GRAVANO, L., 1947.—"Quiste hidatídico calcificado del hígado. (Concomitante con un quiste hidatídico supurado del peritoneo)." 19 (11), 337-341.
- b. CASIRAGHI, J. C., 1947.—"Las hemoptisis y hemorragias en los quistes hidatídicos del pulmón." 19 (17), 591-593.
- \*c. GAMBA, R. & JOSELEVICH, M., 1947.—"Hidatidosis cardíaca." 19, 1049-1052.
- d. PÉREZ FONTANA, V., 1947.—"Biología de la hidatidosis." 19 (45), 1442-1446, 1448-1449.
- e. BLANCO ACEVEDO, E. & AGUERRE, J. A., 1947.—"Quiste hidático genital en la mujer." 19 (46), 1478, 1480-1482.
- f. MORADOR, J. L., 1947.—"El cólico hepático de origen hidático." 19 (47), 1496, 1498-1502.
- g. BLANCO ACEVEDO, E., 1947.—"Las fistulas consecutivas a los quistes hidáticos del hígado marsupializados o drenados." 19 (48), 1550-1551.

#### 461—Dokladi Akademii Nauk SSSR.

- a. ZVEREVA, O. S., 1947.—[Animal population of floating logs and the benthos of the logging sections of a river.] 56 (6), 647-651. [In Russian.]
- b. SKARBLOVICH, T. S., 1947.—[Revision of the systematics of the nematode family Anguillulidae Baylis & Daubney, 1926.] 57 (3), 307-308. [In Russian.]
- c. SKRYABIN, K. I., 1947.—[*Oschmarinella sobolevi* n.gen., n.sp.—a new trematode from the liver of whales.] 57 (8), 857-859. [In Russian.]
- d. GINETSINSKAYA, T. A., 1947.—[The rudimentary sucker of *Cyclocoelum microstomum* (trematodes).] 58 (3), 509-512. [In Russian.]
- e. SPASSKI, A. A., 1947.—[The position of the genus *Echinorhynchotaenia* Fuhrmann, 1909, in the Cestoda.] 58 (3), 513-515. [In Russian.]
- f. SKRYABIN, K. I. & SHIKHOBALOVA, N. P., 1947.—[Revision of the systematics of the nematode family Heterakidae.] 58 (4), 719-721. [In Russian.]
- g. SPASSKI, A. A., 1947.—[The phenomenon of confluence of segments and uterus in cestodes.] 58 (4), 723-724. [In Russian.]
- h. DUBININA, M. N., 1947.—[The geographical distribution of Oxyuridae in tortoises of the genus *Testudo*.] 58 (6), 1247-1250. [In Russian.]
- i. IVASHKIN, V. M., 1947.—[Peculiarities in the life-cycle of the nematode *Mecistocirrus digitatus* (Linstow, 1906), a parasite of the abomasum of ruminants.] 58 (6), 1251-1252. [In Russian.]
- j. SKRYABIN, K. I., 1947.—[The encystment of filariae in the human body, and their systematic position.] 58 (7), 1563-1564. [In Russian.]
- k. GNEDINA, M. P. & VSELODOV, B. P., 1947.—[A new genus of filaria from the intramuscular tissue of an antelope.] 58 (8), 1861-1863. [In Russian.]
- l. SKRYABIN, K. I. & SHIKHOBALOVA, N. P., 1947.—[Division of the nematode genus *Heterakis* into generic components.] 58 (8), 1865-1867. [In Russian.]
- m. BYCHOWSKY, B., 1947.—[On a new genus of viviparous monogenetic trematodes.] 58 (9), 2139-2141. [In Russian.]

(461a) Zvereva examined the animal population of the Vichegda and Sisol rivers in Komi Republic. In the sandy river bed, particularly near the bank, this population was very small and among other forms of life were found odd specimens of nematodes, but in the middle of the river where the sandy bottom was mixed with remnants of trees the population was more rich and varied, particularly in insect larvae. In the floating logs, nematodes were found and were more abundant on the surface of the logs covered with bark and under loosened bark.

C.R.



(461b) According to Skarbilovich the superfamily Anguillulinoidea should be divided into four families: Anguillulidae, Heteroderidae n.fam., Sphaerulariidae n.fam., and Myenchidae. The family Anguillulidae is divided into three subfamilies: (i) Anguillulininae with the genera *Anguillulina*, *Aphelenchus*, *Paraphelenchus*, *Dolichodorus*, *Hexatylus*, *Psilenchus*, *Tylenchorhynchus* and *Nemonchus*; (ii) Aphelenchoidinae n.subfam., with only one genus *Aphelenchoides*; and (iii) Hoplolaiminae with the genera *Hoplolaimus*, *Paratylenchus*, *Atylenchus*, *Eutylenchus*, *Criconema* and *Procriconema*. The family Heteroderidae is divided into two new subfamilies: Heteroderinae n.subfam. and Tylenchululinae n.subfam., and finally the family Sphaerulariidae is divided into two subfamilies: Sphaerulariinae and Allantonematinae. C.R.

(461c) Skryabin gives a detailed description of *Oschmarinella sobolevi* n.g., n.sp., a trematode from the bile-ducts of *Hyperoodon rostratus*. This fluke differs from *Odhneriella* and *Lecithodesmus* by the character of the vitellaria. It differs from *Zalophotrema* and *Synthesium* by the oval shape of the testes, and also from the former by the triangular shape of the eggs in transverse section and from the latter by the absence of a prepharynx and the structure of the vitellaria. The absence of medial and lateral diverticula of the intestine and the large cuticular spines separates *Oschmarinella* from *Campula*, and finally the absence of a prepharynx, the position of the testes and the structure of the vitellaria separate it from *Orthosplanchnus*. A diagnosis of the new genus and a figure of the new species are given. C.R.

(461d) Ginetsinskaya was able to investigate changes in the ventral sucker of *Cyclocoelum microstomum*, a parasite of the body-cavity and air-sacs of *Fulica atra*. In the adult fluke it is possible to see the ventral sucker only in sections. The ventral sucker in the metacercaria of this fluke is on the surface of the body, in adults it is embedded in the parenchyma. The muscle fibres are well developed in the sucker of the metacercaria, are disappearing in the sucker of the young fluke and are absent in the adult. The disappearance of the ventral sucker is considered to be the result of adaptation to its habitat. C.R.

(461e) Spasski discusses the systematic position of *Echinorhynchotaenia tritesticulata*, and transfers it from the family Dilepididae to the tribe Hymenolepaeae of the family Hymenolepididae. For *E. biuncinata* he creates a new genus *Joyeuxilepis* n.g., with a rostellum armed with small hooks along its whole length and a crown of normal hooks near its base; the four suckers are provided with a few rows of small hooks on their margins. The adult is unknown. The larvae are of the cysticeroid type found in Ephemeridae. The type species is *J. biuncinata* in the subfamily Hymenolepidinae. C.R.

(461f) Skryabin & Shikhobalova divide the genus *Aspidodera* into three types. Type I, *A. scoleformis*, with the similar species *A. fasciata*, *A. harwoodi*, *A. raillieti*, *A. subulata* and *A. vazi*, is retained in the genus *Aspidodera*. Type II, *A. ansirupta*, is made the type of *Ansiruptodera* n.g. Type III, *A. binansata*, becomes the type of *Sexansodera* n.g. *Pseudaspidodera* is similarly divided, the species *P. pavonis*, *P. voluptuosus*, *P. voluptuosus minor* and *P. jnanendrae* being retained in the genus, and the species *P. spinosa* becoming the type of *Spinaspidodera* n.g. A key is given for the separation of these five genera of the subfamily Aspidoderinae. E.M.S.

(461g) Spasski describes *Neoskrjabinolepis schaldybini* n.g., n.sp., a curious genus of Hymenolepididae found in a *Sorex* sp. collected in Western Siberia. The cestode breaks off periodically a fragment consisting of 10–20 proglottides with developed uteri. Within each fragment the proglottid walls disappear, this phenomenon being called "confluence of segments". At a later stage the uteri fuse to form a single baggy organ, confining the eggs of all the proglottides of the fragment. If each proglottid contains 10–15 eggs, in separate cavities within the confluent uterus, the eggs form a sort of honeycomb. No illustrations are given. E.M.S.



(461h) Dubinina examined Steppe tortoises (*Testudo horsfieldii*) in Tadzhikistan and found 14 [16] species of oxyurids: *Tachygonetria conica*, *T. dentata*, *T. lobata*, *T. longicollis*, *T. macrolaimus*, *T. microlaimus*, *T. microstoma*, *T. pusilla*, *T. robusta*, *T. stylosa*, *T. thapari*, *T. torticollis*, *T. uncinata*, *Pseudoalaeuris expansa*, *P. inflatocervix* and *Atractis dactyluris*. She gives a table of 37 oxyurids found in different species of *Testudo* from Europe and Asia, Africa, India, America and the Galapagos, and considers it possible from this to come to conclusions about the distribution and phylogeny of oxyurids and also to follow the history of the distribution of their hosts. She is of the opinion that the origin of the oxyurids and their hosts is African. C.R.

(461i) Ivashkin experimentally infected two calves perorally with larvae of *Mecistocirrus digitatus*. Six months later one calf was killed and 113 sexually immature specimens were found. In the faeces of the second calf, eggs were found 203 days after experimental infection; 228 days after infection this calf was killed and 1,609 specimens of *M. digitatus* were found, but only 10-15% were sexually mature. Two control animals were free from infection. When in 1946 he investigated the seasonal dynamics on extensive material, Ivashkin concluded that young specimens of *M. digitatus* are found in the abomasum in September and October, and that during November to February they gradually develop to maturity, which is reached in March. The peak of infection is during April to June. In July spontaneous elimination starts, and by December the parasites of the old infection are completely lost. The parasite takes five months to reach maturity. C.R.

(461j) Skryabin has re-examined all the material at his disposal which has any bearing on the systematic position of the immature female filariids, which have been found encapsulated in various organs in man. He concludes that all immature female filariids encysted in man, described by non-Russian investigators under various names and by Soviet authors as *Loa extraocularis* Skryabin, 1917, are representatives of one and the same species: they are immature females of *Dirofilaria repens* Railliet & Henry, 1911. Man is a facultative host for these parasites, with a strongly marked immunity which prevents the parasites from becoming adult. *Loa extraocularis*, as well as *Filaria palpebralis*, *F. peritonei hominis* and *F. conjunctivae*, should be considered synonyms of *Dirofilaria repens*. All cases of extraocular loiasis in man are thus ascribable to *D. repens*. The mature parasite has only once been reported in man, by Skryabin, Althausen & Schulman [*Trop. Medits. Vet.*, 1930, 8 (2), 9-11.] E.M.S.

(461k) Gnedina & Vsevolodov describe and illustrate *Skrjabinodera saiga* n.g., n.sp. from *Saiga tatarica*, the genus being similar to *Bostrichodera*, with which it is compared and contrasted. E.M.S.

(461l) Skryabin & Shikhobalova discuss the genus *Heterakis* and the genera *Ganguleterakis* and *Gireterakis* which Lane (1914, 1917) separated from the main genus. They create a new genus, *Odontoterakis* n.g. for the species *H. crypturi* and *H. multidentata*, type *O. crypturi* (Baylis), parasites of birds of the family Tinamidae. E.M.S.

(461m) Bychowsky describes and illustrates *Gyrodactyloides petruschewskii* n.g., n.sp. from *Mallotus villosus*, taken on the eastern shore of the Murman sea. With *Gyrodactylus* and *Isancistrum*, this is the third genus of the Gyrodactylidae. The diagnosis is as follows: worms small, with double cephalic lobes; opisthaptor well demarcated by a fleshy disc bearing 16 marginal hooklets, two median hooks with long external and internal offshoots, a single connecting plate and complementary chitinous armature, composed of complexly arranged plates and two filaments; viviparous; parasites of marine fishes. E.M.S.

## 462—Experientia. Basle.

- a. BARIGOZZI, C., 1947.—"Sulla struttura dei cromosomi di *Ascaris megalocephala* Cl. con particolare riguardo all'attacco al fuso." 3 (2), 74-75. [German summary p. 75.]
- b. BOEHM, G., 1947.—"Über eine rotfluoreszierende, als Porphyrin anzusehende Substanz in den Augen von *Hirudo medicinalis*." 3 (6), 241. [English summary.]

(462b) Fluorescence microscopy demonstrated the presence of a porphyrin in the pigment layer of the eyes of *Hirudo medicinalis*. As porphyrins render biological organisms sensitive to light, it may be assumed that the pigment plays a part in the perception of light stimuli.

E.M.S.

## 463—Farmacoterapia Actual. Madrid.

- a. HERNÁNDEZ PACHECO, H., PALLARÉS PALLARÉS, J. & AGUAYO CALZÓN, J., 1947.—"Historia y tratamiento de la anquilostomiasis." 4 (40), 692-701.

## 464—Federation Proceedings. Federation of American Societies for Experimental Biology.

- †a. BIETER, R. N., CUCKLER, A. C., LITCHFIELD, Jr., J. T., BREY, T. E. & WRIGHT, H. N., 1947.—"Chemotherapy of cotton rat filariasis with certain antimony and arsenic compounds." 6 (1), 310.
- †b. BUEDING, E., 1947.—"Effect of cyanine dyes and of sodium fluoracetate on the metabolism of filariae (*L. carinii*)." 6 (1), 312-313.
- †c. BUEDING, E., HIGASHI, A., PETERS, L. & VALK, A. D., 1947.—"Some observations on the action of miracil (1-β-diethylaminoethylamino)-4-methylthioxanthone hydrochloride) against *Schistosoma mansoni*." 6 (1), 313.
- †d. BUEDING, E., PETERS, L. & WELCH, A. D., 1947.—"Metabolism of schistosomes (*S. mansoni*)." 6 (1), 313.
- †e. CRANSTON, E. M., CUCKLER, A. C., LITCHFIELD, Jr., J. T., BREY, T., WRIGHT, H. N. & BIETER, R. N., 1947.—"Chemotherapeutic activity of cyanines and related compounds in filariasis in the cotton rat." 6 (1), 318.
- †f. DEGRAFF, A. C. & SCHUBERT, M., 1947.—"Experimental chemotherapy of schistosomiasis. 2. Comparison of effects of specific drugs." 6 (1), 322.
- †g. HALES, D. R. & WELCH, A. D., 1947.—"Experimental study of the anthelmintic value of the cyanine drugs in dogs." 6 (1), 335-336.
- †h. PETERS, L., HIGASHI, A. & WELCH, A. D., 1947.—"Investigation of 1'-ethyl-3, 6-dimethyl-2-phenyl-4-pyrimido-2'-cyanine chloride (C.M.R. Center No. 863) for possible therapeutic utility in human filariasis." 6 (1), 362.
- †i. PETERS, L., WARTMAN, W. B., MOORE, A., HIGASHI, A. & BUEDING, E., 1947.—"The chronic toxicity of 1'-ethyl-3, 6-dimethyl-2-phenyl-4-pyrimido-2'-cyanine chloride (C.M.R. Center No. 863) for dogs and monkeys." 6 (1), 362-363.
- †j. SCHUBERT, M. & DEGRAF, A. C., 1947.—"Experimental chemotherapy of schistosomiasis. 1. Methods and conditions for drug testing." 6 (1), 369-370.
- †k. VALK, Jr., A. D., PETERS, L. & WELCH, A. D., 1947.—"Some observations on distribution and excretion of 1'-ethyl-3, 6-dimethyl-2-phenyl-4-pyrimido-2'-cyanine chloride (C.M.R. Center No. 863) in dogs." 6 (1), 379.
- †l. WELCH, A. D., PETERS, L., BUEDING, E., VALK, Jr., A. D. & HIGASHI, A., 1947.—"Studies on the relative antifilarial activity of a series of cyanine dyes against *Litomosoides carinii*." 6 (1), 382-383.
- †m. WRIGHT, H. N., CUCKLER, A. C., CRANSTON, E. M. & BIETER, R. N., 1947.—"Pharmacology of 1,1'-di-B-ethoxyethyl-2,2'-carbocyanine P-toluene sulfonate and derivatives in cotton rat filariasis." 6 (1), 387-388.

(464a) The following compounds showed considerable chemotherapeutic activity when injected intraperitoneally at 8-hour intervals into cotton rats infected with *Litomosoides carinii*: neostibosan when injected 18 or 36 times in doses of 60 mg. per kg. body-weight, anthiomaline after 36 injections of 12 mg. per kg., tryparsamide or melarsen injected 18 times in doses of 100 mg. per kg., and sulpharsphenamine after 18 doses of 5 mg. per kg.

R.T.L.

† Abstract of paper to be presented at the 37th Annual Meeting of the American Society for Pharmacology and Experimental Therapeutics, Chicago, Ill., May 18-22, 1947.



(464b) [A fuller account of this work appears in *Ann. N.Y. Acad. Sci.*, 1948, 50 (2), 115-116. For abstract see *Helm. Abs.*, 17, No. 71j.]

(464c) The chemotherapeutic activity of miracid against *Schistosoma mansoni* is confirmed. After treatment with 18 eight-hourly doses of 36 mg. per kg. body-weight intraperitoneally, 50% of the surviving mice showed no flukes at autopsy although severe schistosome damage was observed in the liver. In the other 50%, although flukes were recovered from the liver, none were present in the portal and mesenteric veins. R.T.L.

(464d) Cyanine dyes inhibit the oxidative metabolism of *Schistosoma mansoni* but do not kill the worms. The rate of anaerobic glycolysis is almost as great as that of aerobic glycolysis. Fouadin was more effective in depressing the respiration than the glycolysis. 2-methyl-1, 4-naphthoquinone was considerably effective in inhibiting the glycolysis of the worms *in vitro*. Evidence is given that the synergistic effect of 2-methyl-1, 4-naphthoquinone in infected mice receiving fouadin is due to inhibition of glycolysis by the former substance and that this metabolic reaction, rather than respiration, is essential for their survival. R.T.L.

(464e) [A fuller account of this work appears in *Ann. N.Y. Acad. Sci.*, 1948, 50 (2), 109-114. For abstract see *Helm. Abs.*, 17, No. 71i.]

(464f) The effectiveness of a variety of trivalent and pentavalent antimonials tested against *Schistosoma mansoni* showed wide variations. One new [unnamed] antimonial was found to be highly effective when fed to infected mice. None of over 300 organic compounds of varied structure showed any definite value. R.T.L.

(464g) A single oral dose of 20 mg. per kg. body-weight of (6-dimethylamino-1-methyl-2-quinoline) (2,5-dimethyl-1-phenyl-3-pyrrole) dimethinecyanine chloride ("C.M.R. Center No. 715") was vermifugal for all ascarids in 11 out of 12 dogs and was sometimes completely effective against all hookworms at various dosages over given varying intervals. The single dose caused vomiting in about 10% of the dogs treated and there was evidence of moderate reversible nephrosis unaccompanied by uraemia. R.T.L.

(464h) A cyanine ("C.M.R. Center No. 863") administered to cotton rats infected with *Litomosoides carinii* resulted in cures after six intravenous doses of 1.0 mg. per kg. body-weight at intervals of one, three or even seven days. Fatalities consistently occurred with doses of 10 mg. per kg. Its utility in human filariasis is to be tested in Puerto Rico. R.T.L.

(464i) The cyanine "C.M.R. Center No. 863", administered intravenously to dogs and monkeys, produced no pathological changes except reversible alterations in the kidney; in clinical trials in man there was no systemic toxicity. R.T.L.

(464j) Colonies of *Australorbis glabratus* were infected with miracidia of *Schistosoma mansoni* hatched from eggs from experimentally infected hamsters. 140 cercariae each were injected intraperitoneally into mice. In 8-20 weeks' time 92% of the mice were found to be infected with an average of 11 worms per mouse; of these 25% were in the liver, 25% in the portal vein and 50% in the mesenteric veins. 80% of the worms were paired. Very few mice had over 30 worms. The advantage is stressed of keeping the mice for two weeks after treatment before autopsy in order to observe any permanent damage to the worms. R.T.L.

(464k) Although single doses of 5 mg. per kg. body-weight of the cyanine "C.M.R. Center No. 863" practically disappeared from the body of dogs in 72 hours, repeated daily intravenous doses of 2 mg. per kg. resulted in some accumulation. R.T.L.

(464l) A cyanine dye (1-amyl-2,5-dimethyl-3-pyrrole) (1,6-dimethyl-2-quinoline dimethinecyanine chloride) killed all *Litomosoides carinii* in cotton rats when 0.1 mg. per

kg. body-weight was given intraperitoneally every eight hours on 18 occasions, or 0.2 mg. per kg. was given every 24 hours for five doses. These doses were one-tenth to one-fifteenth of the maximum tolerated dose. R.T.L.

(464m) Eighteen doses, given at 8-hourly intervals, of 0.0167 mg. per kg. body-weight of 1,1'-di-B'-ethoxyethyl-2,2'-carbocyanine chloride and the *p*-toluene sulphonate derivative were completely curative in cotton rats infected with *Litomosoides carinii*. Both were highly active when injected intraperitoneally once daily for six days. R.T.L.

#### 465—Food Industries. New York.

- a. TOBEY, J. A., 1947.—“Who is liable for trichinosis?” 19 (4), 474-475, 596, 598.

(465a) Tobey has collected and briefly summarized the verdicts of Federal and State Courts in the U.S.A. on liability for trichinelliasis. The general rule is that “pork, infected with trichinae, which is sold for human consumption only after proper cooking, usually can not be considered an unwholesome product which will give rise to an action for negligence. Such an action, however, may be valid if the product is sold for consumption without cooking, or is sold when improperly cooked by a restaurant keeper. Disease due to trichinae-infected pork will, however, sustain an action for breach of implied warranty as to the fitness of the food for the purpose intended, at least in a number of states”. Care must therefore be exercised in production and sale of pork products. R.T.L.

#### 466—Försök och Forskning. Stockholm.

- a. TIHKAN, M., 1947.—“Klövernematoden bör uppmärksammas.” 4 (1), 10.  
b. BINGEFORS, S., 1947.—“Klövernematod och klöverröta—ett allvarligt hot mot vallodlingen.” 4 (7), 90-92.

(466a) Attention should be given to the clover stem eelworm, and farmers in Sweden are recommended to report attacks to the Plant Protection Institute. [See also Helm. Abs., 15, No. 616a.] S.B.

(466b) In this paper a popular review is given of the symptoms of clover rot and clover eelworm disease in red clover, resistance in some red clover strains, and how to control the parasite attacks. S.B.

#### 467—Friuli Medico. Udine.

- a. MORGANTI, F., 1947.—“La ricerca di alcuni parassiti intestinali (oxiuris, ascaridi) dall'età di un anno fino a cinque anni.” 2 (1), 104-107. [English & French summaries p. 107.]

(467a) Faecal examination of 100 children between one and five years old during a period of 40 days, revealed only two cases with *Ascaris* and three with *Enterobius*. The children were inmates of a children's home. E.M.S.

#### 468—Gaceta Médica de Lima.

- \*a. URTEAGA B., O. & NARYAEZ, ET AL., 1947.—“Tuberculosis pulmonar, laringea e intestinal y quiste hidático pulmonar.” 3 (1/2), 29-33.

#### 469—Gaceta Médica de México.

- a. VARGAS, L., 1947.—“Notas sobre la oncocerciasis. VI. Consideraciones sobre la biología de las larvas de simúlidos.” 77 (6), 346-352.

(469a) Vargas discusses the various factors which favour the existence of *Simulium* spp. in Chiapas, Mexico, where human onchocerciasis is endemic, with special reference to the food requirements of the larvae and the temperature and rate of flow of the water in which they breed. J.J.C.B.



**470—Gastroenterology. Baltimore.**

- a. WHITEHOUSE, F. R., 1947.—“Massive eosinophilia in uncinariasis: report of two cases.” 9 (3), 303-306.

**471—Ginecologia. Turin.**

- a. SANTOMAURO, U., 1947.—“Distocia da echinococco pelvico (a proposito di un caso di cisti idatidea occludente lo scavo).” [Abstract of paper presented to the Società Siciliana di Ostetricia e Ginecologia.] 13 (4), 200.

**472—Giornale Italiano di Chirurgia. Naples.**

- a. PIGNATELLI, G., 1947.—“Sul trattamento chirurgico dell'echinococco della milza.” 3 (6), 316-322.  
b. ROMEO, M., 1947.—“Contributo clinico allo studio delle cisti da echinococco della milza.” 3 (11), 615-624.

**473—Glasnik Hrvatsko Prirodoslovno Društvo, Bioloske Sekcije.**

- a. EHRLICH, I., 1947.—“Prilog reviziji kapilarija (Capillariinae, Nematoda) iz mokraćnog mjehura mačke.” Ser. II/B, 1, 79-85. [English summary pp. 84-85.]

(473a) Ehrlich points out that Zakharov (1920) had already published a description of *Capillaria felis-cati* (Bellingham, 1844) when Freitas & Lent in 1936 published a description under that name, which was however not the same species as described by Zakharov. He proposes therefore that *C. felis-cati* should remain as a species inquirenda, and that new names should be assigned to the described species, *C. skrjabini* nom.nov. for Zakharov's species and *C. travassosi* nom.nov. for that of Freitas & Lent. Ehrlich has found three species in the urinary bladders of cats in Zagreb, which he identifies as *C. skrjabini*, *C. plica* (a common parasite of dogs), and *Capillaria* sp. resembling *C. plica* but hitherto undescribed. Diagnoses are given of the four species now known and described from cats.

E.M.S.

**474—Göteborgs Kungl. Vetenskaps- och Vitterhetssamhälles Handlingar. Ser. B.**

- a. ALLGÉN, C. A., 1947.—“Weitere Beiträge zur Kenntnis der Nematoden-Fauna des südlichen Kattegatts.” 6. Följden, 5 (12), 37 pp.

(474a) Allgén examined the nematode fauna of a clump of *Zostera* driven ashore near the harbour at Torekov in 1945, and of seaweeds collected at the same place and at Hallands Väderö at the same time. Lists are given of the nematodes found in each habitat, and these are compared with each other and with previous records for the south Kattegat region. Descriptive notes with some illustrations are given of the 42 species now recorded.

E.M.S.

**475—Grower. London.**

- a. GRANT, R., 1947.—“The control of onion eelworm.” 27 (23), 648.  
b. MOULDS, W., 1947.—“Onion eelworm control.” 28 (4), 104.

(475a) This is a popular exposition of Goodey's methyl bromide treatment for onion seed, suggesting how growers can do their own fumigation. [The care necessary by inexperienced users is not sufficiently stressed.]

J.B.G.

(475b) This is a brief note from a representative of the United Kingdom manufacturers of methyl bromide, pointing out the dangers of its haphazard use and saying that the National Institute of Agricultural Botany, Cambridge, has plant for the fumigation of considerable quantities of seed.

J.B.G.

**476—Harefuah.**

- a. FRÖHLICH, D., 1947.—[Pulmonary embolism due to *Ascaris* larvae.] 33 (4), 57-58. [In Hebrew.]

## 477—Hints to Potato Growers.

- \*a. CAMPBELL, J. C., 1947.—“The golden nematode.” 28 (4), 1-3.

## 478—Hoja Tisiológica. Montevideo.

- a. SOTO BLANCO, J., 1947.—“Equinococosis pulmonar. Su tratamiento quirúrgico.” 7 (2), 101-114.

## 479—Hospital. Rio de Janeiro.

- a. ANTUNES, M. L., 1947.—“Notas sobre a incidência da enterobiose.” 32 (6), 971-979.

(479a) The incidence of *Enterobius vermicularis* was explored by faecal examination and by NIH swab in 100 poor children 2-10 years old, receiving assistance under the Legião Brasileira de Assistência in São Paulo. Only three positive cases were found by faecal examination. Thirty were found by a single NIH swab; 43 of the remainder were re-examined and 12 of these proved positive, a total of 42 cases found. Pruritus ani was not a significant symptom, being reported present in some negative cases and absent in 25 of the positive cases. Other helminths revealed by the faecal examination were: *Ascaris* in 36, *Trichuris* in 15, *Hymenolepis nana* in 10, hookworm in 4, and *Strongyloides* in 3.

E.M.S.

## 480—Igiene e Sanità Pubblica. Salerno.

- a. SACCOMANNO, G., SACCOMANNO, A. & LAPORTA, G., 1947.—“Sindrome acuta di anchilostomiasi nell'infanzia.” 3 (7/9), 431-435.

## 481—Illustrierte Flora. Graz.

- a. SCHMIDT, W., 1947.—“Die Blattälchenkrankheit der Chrysanthemen.” 70 (5), 62-63.

## 482—Indian Journal of Surgery.

- a. SRIVASTAVA, S. P., 1947.—“Hydatid cyst of innominate bone.” 9 (3), 157-158.

## 483—Indian Journal of Veterinary Science and Animal Husbandry.

- a. SARWAR, M. M., 1947.—“An account of two species of lungworms from Indian goats.” 17 (1), 63-67.

(483a) Sarwar describes and illustrates the bursa, spicules, accessory pieces and female tail of *Protostrongylus indicus* and *Varestrongylus capricola*. [In its first published form (see Helm. Abs., 13, No. 440i) the latter name was spelt *V. capricota*.] A comparison is made with *Dictyocaulus filaria*, the spicules and gubernaculum of which are figured. R.T.L.

## 484—Indian Medical Journal.

- a. RAHMAN, A., 1947.—“A fatal case of round worms showing simulating epilepsy.” 41 (5), 90.  
b. CHOWDHURY, M. Z., 1947.—“A case of ascariasis simulating enteric fever.” 41 (7), 120.  
c. CHAUDHURY, S. K., 1947.—“An unusual case of ascariasis.” 41 (7), 120-121.

(484c) A white thread-like worm was removed from the perforated tympanic membrane of a child two years of age.

R.T.L.

## 485—Indian Medical Record.

- a. RANJAN, M. P., 1947.—“Oxyuriasis.” 67 (8), 234-236.  
b. SARKAR, R. N., 1947.—“Ankylostomiasis—a common disease of Bengal.” 67 (12), 376-378.

## 486—Jornal de Pediatria. Rio de Janeiro.

- a. PENTAGNA QUEIMA, A., 1947.—“O vermifugo nas tóxico-verminoses.” 13 (7), 163-166.  
b. TELLES, W., 1947.—“Obstrução intestinal por *Ascaris*.” 13 (9/10), 229-234.



**487—Journal of the American Medical Association.**

- a. CAWSTON, F. G., 1947.—"Schistosomiasis." [Correspondence.] 135 (17), 1167.

**488—Journal of the American Medical Women's Association.**

- \*a. BIRCH, C. L., 1947.—"Tropical medicine; the helminthes." 2 (7), 339; (9), 403-405; (11), 490-493.

**489—Journal of the Department of Agriculture. South Australia.**

- a. SMITH, W. S., 1947.—"Use of sodium fluoride for removal of internal parasites in pigs." 50 (11), 546.

**490—Journal of the Egyptian Public Health Association.**

- \*a. NASR, M., 1947.—"The helminthic infestation of Egyptian infants and children in Cairo." 22 (5), 73-78.

**491—Journal of Hygiene. Cambridge.**

- a. ATKINS, W. R. G., 1947.—"A suggested repellent for schistosome cercariae." 45 (4), 468.

(491a) Repellents have been used effectively against malaria mosquitoes, and Atkins suggests that they might also be tested against schistosome cercariae. Since copper soaps are successful in preventing bacterial action and fouling, Atkins recommends testing greasy copper oleate, either alone or mixed with copper stearate or palmitate, in low concentrations of the order of 1-5%. These substances should not affect the skin, and it is unlikely that toxic amounts of copper would be absorbed.

A.E.F.

**492—Journal of the Indian Medical Association.**

- a. RAO, S. V., 1947.—"Hydatid disease (?) of the lung." 16 (5), 158-159.

**493—Journal of Mammalogy.**

- a. MOORE, E. R. & MOORE, G. C., 1947.—"The helminth parasites of cottontail rabbits in Alabama, with notes on the arthropod *Linguatula serrata*." 28 (3), 279-284.

(493a) Of the helminth species found in 50 *Sylvilagus floridanus* killed near Auburn, Alabama, six were nematodes (*Dermatoxys veligera*, *Trichuris leporis*, *Longistriata noviberiae* (?), *Passalurus ambiguus*, *Obeliscoides cuniculi*, *Trichostrongylus calcaratus*) which occurred in 96%, four were cestodes (*Cittotaenia variabilis*, *Railletina salmoni*, *Cysticercus pisiformis* and *Multiceps serialis*) which infected 92%, and one was the trematode *Hasstilesia tricolor* which was present in 20%. The percentage of rabbits in which each species was found is tabulated. A comparison is made with similar earlier surveys.

R.T.L.

**494—Journal de Médecine de Lyon.**

- a. MOURIQUAND & ROMAN, E., 1947.—"Diagnostic de l'oxyurose infantile par prélèvement humide suivant la technique récente de Schüffner et Swellengrebel." [Abstract of paper presented at a meeting of the Réunion Lyonnaise de Pédiatrie, June 16, 1946.] 28 (656), 352.  
b. ROMAN, E. & COUDERT, J., 1947.—"Infestation par l'oxyure de la population infantile de la région lyonnaise." 28 (667), 761-764.

(494b) Roman & Coudert examined by moist swab of the anal region 300 children at a medical clinic and 306 attending a dermatology clinic after being in hospital. Enterobius eggs were found in 92 (30.65%) and in 144 (47.05%) respectively. Other infections noted were Trichuris (2.95%), Ascaris (1.5%) and Taenia solium (0.5%).

E.M.S.

## 495—Journal of the Michigan State Medical Society.

- a. SANDWEISS, D. J. & SUGARMAN, M. H., 1947.—“Fish tapeworm infestation due to sampling of ‘gefülte’ fish or its soup before adequate cooking. Report of eleven cases with a discussion on the epidemiology of the disease.” 46 (10), 1156–1164.

(495a) Eleven cases of *Diphyllbothrium latum* infection are described, all from Jewish women, and are ascribed to their habit of tasting before cooking the seasoned appetizer known as “gefülte” fish, or its soup. To destroy the larvae, fish must be cooked for about half an hour at 57°C. to 60°C. at least, or frozen for 24–48 hours at –10°C. E.M.S.

## 496—Journal of the Mount Sinai Hospital, New York.

- a. WEINBERG, T., 1947.—“*Echinococcus alveolaris* infection of the human liver.” 13 (6), 331–336.

## 497—Journal of the National Medical Association. New York.

- a. POINDEXTER, H. A., 1947.—“Further studies on the diagnostic value of the eosinophil.” 39 (1), 13–21.  
b. BRISCOE, M. S., 1947.—“Parasitic infections in West Africa.” 39 (2), 57–61.

(497a) Poindexter found that in the south-west Pacific area, among 79 U.S. soldiers with acute helminthiasis, a progressive absolute eosinophilia was associated with an eosinophilic index greater than one, and an increase in the size or agglomeration of cytoplasmic granules. This association was not present in 25 Filipinos with chronic helminthiasis, nor in 54 U.S. soldiers with eosinophilia not associated with helminthiasis. Differences in the leucocyte-eosinophil pattern were helpful in differentiating schistosomiasis japonica from other causes of acute helminthiasis. E.M.S.

## 498—Journal of the Oklahoma State Medical Association.

- a. SMITH, G. C. & RICHARDSON, D. L., 1947.—“An epidemiological study of pinworms in patients at Oklahoma Hospital for Crippled Children.” 40 (2), 49–51.  
b. GREGG, O. R. & McCLINTOCK, M. J., 1947.—“Incidence of intestinal parasites in south-eastern Oklahoma.” 40 (7), 282–284.  
c. McMULLEN, D. B., 1947.—“Treatment of parasitic infections common in Oklahoma.” 40 (7), 284–285.

(498a) Cellophane-tape examination of 117 crippled children revealed 33.3% positive for enterobiasis. Infection was highest (47.8%) in those of early school age. The incidence was lower (24%) in children who had been longer than a month in hospital, and averaged only 7.2% after 60 days in hospital. E.M.S.

(498b) Because of the finding of persistent anaemias in Oklahoma schoolchildren, a faecal survey was made of the incidence of intestinal parasites in “run-down” children, food handlers, and the families of persons found to be infected. Among 239 persons handling food, 84 (35.5%) were found to be infected, including 10 (4.1%) with hookworm and 3 (1.2%) with *Ascaris*. Of 291 other persons examined, principally children, 152 (52.3%) were infected, including 55 (19.2%) with hookworm, 17 (5.9%) with *Strongyloides*, 6 (2%) with *Ascaris*, 13 (4.4%) with *Hymenolepis nana* and 3 (1%) with *Enterobius*. E.M.S.

## 499—Journal of the Royal Asiatic Society of Bengal. Science.

- a. AKHTAR, S. A., 1947.—“A new species of nematode parasite of a lizard.” Year 1946, 12 (1), 1–2.

(499a) *Alaauris rifkii* n.sp. from *Agama* sp. differs from *A. iguanae* in that the accessory piece is Y-shaped, the middle pair of the pericloacal group of caudal papillae are relatively lateral and the tail of the male is incurved with a fine-pointed terminal spike. R.T.L.

## 500—Journal of the Royal Faculty of Medicine of Iraq.

- \*a. OVANESSIAN, 1947.—“Intussusception due to bilharziasis.” 11 (3), 89–90.



**501—Journal d'Urologie Médicale et Chirurgicale.**

- a. CABANIÉ, G., 1947.—“Un kyste hydatique anormal: tumeur hydatique solide du rein.” 53 (4/6), 121-123.

**502—Jugoslovenski Veterinarski Glasnik.**

- a. ŠALJINSKI, T. B., 1947.—“Kerato-conjunctivitis infectiosa i telaziske invazije očiju goveda u Makedoniji.” 1 (9), 485-492. [Russian summary p. 492.]

(502a) Šaljinski reports the occurrence of *Thelazia* in the eyes of 15-90% of the cattle in the various districts of Macedonia. In view of the wide distribution of this parasite and its occurrence in large numbers without eye changes, he concludes that it is not the cause of infective kerato-conjunctivitis.

C.R.

**503—Khirurgiya. Moscow.**

- \*a. POPOVYAN, I. M., 1947.—[Clinical diagnosis and surgical therapy of pulmonary echinococcosis.] No. 5, pp. 55-64. [In Russian.]

**504—Klinicheskaya Meditsina. Moscow.**

- a. FEDOROVICH, D. P., 1947.—[A case of echinococcus of retroperitoneal glands.] 25 (2), 74-75. [In Russian.]  
b. TIKHONOV, K. B., 1947.—[Multiple pulmonary echinococcosis with tuberculosis and tropical malaria.] 25 (4), 75-76. [In Russian.]

**505—Klinische Medizin. Vienna.**

- a. KÖRNER, T., 1947.—“Beitrag zur Klinik und Therapie der ‘Appendicopathia oxyurica’.” 2 (16), 780-785.

**506—Klinische Monatsblätter für Augenheilkunde und für Augenärztliche Fortbildung.**

- a. HARTMANN, K., 1947.—“Entfernung eines lebenden *Cysticercus cellulosae* (Blasenwurm) aus der vorderen Augenkammer.” 112 (4), 333-338.

**507—Konevodstvo.**

- \*a. VELICHKIN, P. A., 1947.—[Worm infestations in horses.] 17 (5), 32-35. [In Russian.]

**508—Kongelige Norske Videnskabers Selskabs Forhandling.**

- a. ALLGÉN, C. A., 1947.—“Über einige Tiefsee-Nematoden aus dem Lophhavet im nördlichen Norwegen.” Year 1946, 19 (3), 7-10.  
b. ALLGÉN, C. A., 1947.—“Zur Kenntnis Norwegischer Nematoden IX. Ein Südsee-Nematoda in der Strandzone von Frøya (Norwegen).” Year 1946, 19 (4), 11-13.  
c. ALLGÉN, C. A., 1947.—“Zur Kenntnis Norwegischer Nematoden X. Neue freilebende marine Nematoden von der Insel Storfosen.” Year 1946, 19 (15), 52-55.  
d. ALLGÉN, C. A., 1947.—“Zur Kenntnis Norwegischer Nematoden XI. Weitere Nematoden von der Insel Storfosen.” Year 1946, 19 (16), 56-59.  
e. ALLGÉN, C., 1947.—“Zur Kenntnis Norwegischer Nematoden XII. Weitere freilebende Nematoden aus der Strandzone bei Rørvik.” Year 1946, 19 (17), 60-63.

(508a) Allgén records with brief descriptive notes the following nematode species found at a depth of 200-250 metres in the Lophhavet: *Anticoma limalis*, *Viscosia glabra*, *Dolicholaimus tenuicaudatus*, *Monoposthia costata* and *Araeolaimus elegans*.

E.M.S.

(508b) *Chaetosoma campbelli*, described by Allgén in 1932 from Campbell Island in the South Seas, is now recorded and described from mud of the island of Frøya in Norway.

E.M.S.

(508c) From a mud sample from the island of Storfosen, Allgén describes the female of *Desmodora frøensis*, and also the following new species: *Oxystomatina longisetum* n.sp., *Viscosia donsi* n.sp. and *Eurystomatina norvegicum* n.sp.

E.M.S.

(508d) Allgén describes the following new species of free-living nematodes from a mud sample from Storfosen : *Araeolaimus propinquus* n.sp., *Axonolaimus longisetosus* n.sp., *Eutelolaimus donsi* n.sp. and *Eumorpholaimus norvegicus* n.sp. E.M.S.

(508e) Allgén describes as new three additional species of nematodes found at Rörvik : *Paracanthonus donsi* n.sp., *Trefusia longiseta* n.sp. and *Pseudolella norvegica* n.sp. E.M.S.

#### 509—Kungl. Fysiografiska Sällskapet i Lund Förhandlingar.

- a. ALLGÉN, C. A., 1947.—"Weitere Untersuchungen über schwedische Nematoden." 17 (7), 73-82.

(509a) Allgén describes *Glauxinema filicaudatum* n.g., n.sp., found on the roots of *Glaux maritima* near the Zoological Station of Kristineberg, on the west coast of Sweden. The new genus resembles *Diplogaster*, *Diplogasteroides* and *Odontopharynx*, and differential characters are given for each of these. Notes are also given on *Ironus ignavus*, *Dorylaimus stagnalis* and *Actinolaimus macrolaimus*, from a lake in the province of Jämtland. E.M.S.

#### 510—Laboratory Digest. St. Louis, Mo.

- a. BENÍTEZ SOTO, L., 1947.—"Histological studies in biopsy skin specimens taken from patients with onchocerciasis and in onchocercomas." 11 (4), 1-5.

(510a) Benítez Soto studied skin specimens from ten patients, Africans and Mexicans, with onchocerciasis, "mal morado" (chronic cutaneous onchocerciasis with discrete oedema and blue-green skin colour), and onchocercomas. No evidence was found of specific pigments in the epidermis or dermis. It was not possible to prove the penetration of the microfilariae into the lymphatic vessels : on the contrary the observed facts showed the larvae outside the lymph channels. E.M.S.

#### 511—Levende Natuur. Amsterdam.

- a. DRESSCHER, T. G. N. & ENGEL, H., 1947.—"Een nieuwe diersoort voor het Nederlands gebied." 50 (8/9), 105-107.

(511a) *Haementeria costata* (syn. *Placobdella costata*), a comparatively rare European leech, is reported from Holland. Specimens were found at three localities during 1944, and the species may be commoner than has been supposed. E.M.S.

#### 512—Lille Chirurgical.

- a. VERHAEGHE, E. & VERHAEGHE, M., 1947.—"Occlusion intestinale aiguë par ascaris." 2 (8), 112-113.

#### 513—Lyon Médical.

- a. LEVRAT & COUDERT, 1947.—"Maladie de Vaquez traitée par ankylostomiase." 177 (18), 299-303. [Discussion p. 303.]  
b. CAMELIN & GARNUNG, 1947.—"Syndrome de Loeffler. Réaction d'allergie chez un porteur de trichocéphales." 177 (24), 405-407.

#### 514—Maanedsskrift for Dyrlaeger.

- a. ROTH, H. & VINDEKILDE, T., 1947.—"Et Tilfaelde af Lungeorm (*Dictyocaulus arnfieldi*) hos Hest." 59 (6), 141-157. [English summary pp. 154-155.]

(514a) *Dictyocaulus arnfieldi* is rare in Denmark. A case contracted in Copenhagen is reported, in a 1½-year-old colt that had died of enteritis. The infection was probably introduced during the German occupation from the Russian theatre of war. An account is also given of the history, distribution, biology, morphology, zoological affinities and pathology of *D. arnfieldi*. A key is provided for the differentiation of *D. arnfieldi* in equines, *D. viviparus* in cattle and deer, and *D. filaria* in sheep and goats. Attention is drawn to the erroneous records of *D. viviparus* in equines in older literature. R.T.L.



**515—Medical Bulletin, Office of the Chief Surgeon, European Command.**

- \*a. BURLINGAME, P. L., 1947.—“Survey of intestinal parasites.” 2 (4), 18–31.
- \*b. TODD, F. A., 1947.—“Trichina inspection in Germany.” 4 (2), 30.

(515b) [This paper has also appeared in *Vet. Med.*, 1948, 43 (1), 23–25. For abstract see *Helm. Abs.*, 17, No. 54a.]

**516—Medical Bulletin. Standard Oil Company (New Jersey).**

- a. JENKINS, T. W., 1947.—“Hookworm survey.” 7 (2), 113–118.

(516a) Faecal examination of 232 natives of Papua for helminth eggs showed that 81.06% harboured hookworms and 17.24% *Trichuris trichiura*. No other helminths were present. 3 c.c. of tetrachlorethylene proved a safe treatment when preceded and followed by 1 oz. of magnesium sulphate.

R.T.L.

**517—Medical Journal of Australia.**

- a. KINSELLA, V. J., 1947.—“Hydatid cysts in the lungs.” [Demonstration.] 34th Year, 1 (13), 410.

**518—Medical Parasitology and Parasitic Diseases.**

- a. GORYACHEV, P. P., 1947.—[Investigation of helminth eggs in the waters of the rivers Irtysh and Om.] 16 (1), 75–78. [In Russian.]

(518a) Goryachev examined both the sediment and the supernatant fluid of samples of water from the rivers Irtysh and Om near Omsk, and found the eggs of the following helminths: *Opisthorchis felineus*, *Dicrocoelium dendriticum*, *Diphyllbothrium latum*, *Ascaris lumbricoides* and *Enterobius vermicularis*. He estimates that there were 10 helminth eggs per 100 litres in the winter and 40 in the spring. He concludes, however, that this method of examination does not reveal all the eggs present.

C.R.

**519—Medical Record.**

- a. BAROODY, B. J., 1947.—“Fecal examination methods in schistosomiasis japonica.” 160 (10), 606–609.

**520—Medical Woman's Journal.**

- a. O'NEAL, R. & MAGATH, T. B., 1947.—“Trichostrongylus infection of human beings. Report of three cases.” 54 (12), 20–23.

(520a) [This paper has also appeared in *Proc. Mayo Clin.*, 1947, 22 (10), 193–197. For abstract see *Helm. Abs.*, 16, No. 304a.]

**521—Medicina. Madrid.**

- \*a. GANDARA PENELA, N., 1947.—“Anafilaxia e hidatidosis en cirugía.” 15 (1) 5), 374–400.

**522—Medicina y Cirugía. Bogotá.**

- \*a. BONILLA NAAR, A., 1947.—“Tratamiento de la teniasis por la ‘metoquina’ Winthrop, previa intubación duodenal (comunicación preliminar).” 12, 58–62.

**523—Medicina-Cirurgia-Farmácia. Rio de Janeiro.**

- a. RODRIGUES DA SILVA, J., 1947.—“Exames complementares no diagnóstico da schistosomose mansoni. A importância da biopsia de tecido retal pelo processo de Ottolina e Atencio.” Year 1947, No. 132, pp. 188–201.

**524—Medicina-Clínica. Barcelona.**

- a. GENOVER MONROSET, E. & SEÑOR, J. C., 1947.—“Aspectos tocológicos de la hidatidosis génito-peritoneal.” 9 (6), 374–377.

**525—Medicina Española.**

- a. GRANENA, 1947.—"Quiste hidatídico del pulmón y tuberculosis." Año X, 17 (95), pp. IV-V. [Discussion p. V.]
- b. ALMELA GUILLÉN, J. & BENLLOCH NAVARRO, R., 1947.—"Quiste hidatídico calcificado que simuló, clínica y radiológicamente, una colelitiasis." Año X, 18 (102), 291-294.

**526—Medicina Internazionale. Milan.**

- \*a. ZANCAN, B., 1947.—"Rilievi diagnostici e terapeutici sulle elmintiasi più comuni." 55 (1), 13-16.
- \*b. BELLOMO, A. & BOLOGNA, R., 1947.—"Ancora a proposito dell'eosinofilia nelle elmintiasi intestinali." 55 (6), 257-258.

**527—Medicina. Revista Mexicana.**

- a. RUIZ SANCHEZ, F. & OROZCO, G., 1947.—"La incidencia de la triquinosis en Guadalajara, Jal., revelada por el estudio post-mortem de diafragmas humanas." 27 (530), 173-176.
- b. OTTOLINA, C., 1947.—"El problema clínico de la schistosomiasis mansoni ante nuevos métodos diagnósticos y sus resultados." 27 (546), 553-564.

(527a) A single instance of *Trichinella spiralis* infection was observed in a routine examination of 102 human diaphragms in Guadalajara, Mexico. The earlier results of Perrin [see Helm. Abs., 11, No. 187a], and of Mazzotti & Chavira [see Helm. Abs., 12, No. 396b; 13, No. 273b] are quoted. The former found 25 positives in 200 cadavers; positive results were obtained by the latter in 4% of 527, 12.3% of 73 and 11.5% of 400 diaphragms.

R.T.L.

**528—Medicine. Baltimore.**

- a. WARTMAN, W. B., 1947.—"Filariasis in American Armed Forces in World War II." 26 (4), 333-394.
- b. CHALGREN, W. S. & BAKER, A. B., 1947.—"The nervous system in tropical disease. A clinical review." 26 (4), 395-439.

(528a) Wartman has examined the material collected from all available sources at the Army Institute of Pathology, Washington, and on this basis gives a detailed report of the epidemiology, course, symptoms, laboratory findings and pathology in filariasis bancrofti as observed in the U.S. Armed Forces.

E.M.S.

(528b) [A similar article appeared in *Arch. Path.*, 1946, 41 (1), 66-117. For abstract see Helm. Abs. 15, No. 10a.]

**529—Medizinische Klinik.**

- a. DORMANNS, E., 1947.—"Über gehäuftes Auftreten schwerer Komplikationen und Todesfälle durch Ascariden." 42 (4), 145-149.
- b. KÖNDGEN, F., 1947.—"Über die Spulwurmerkrankungen, vom chirurgischen Standpunkt aus gesehen." 42 (21/22), 802-806.
- c. ERHARDT, A., 1947.—"Kritischer Beitrag zur Behandlung der Oxyuriasis." 42 (23/24), 859-861.

(529c) Erhardt considers that enterobiasis therapy is still unsatisfactory, as shown by the multiplicity of new and "effective" remedies. Control must be aimed at preventing reinfection, when spontaneous recovery occurs.

E.M.S.

**530—Medizinische Rundschau. Mainz.**

- \*a. CURSCHMANN, H., 1947.—"Ueber Trichinose." 1 (6), 204-206.

**531—Medlemsblad for den Danske Dyrlegeforening.**

- \*a. OLSEN, S. J., 1947.—"Lungeorm hos Katten." 30 (8), 133-142.



**532—Mémoires de l'Académie de Chirurgie. Paris.**

- a. FERRON, E., 1947.—"Spasme iléal et oxyurose." 73 (1/2), 24-25.
- b. OULIÉ & GRASSET, 1947.—"A propos du traitement chirurgical de l'échinococcose diffuse des os du bassin." 73 (10/11), 249-253. [Discussion p. 253.]
- c. SAUVAGE, R., 1947.—"Rupture intrathoracique d'un kyste hydatique du foie. Perforation pulmonaire. Pyothorax hydatique enkysté, guéri par thoracotomie simple et aspiration." 73 (29/30), 600-601.

**533—Mémoires de l'Institut Royal Colonial Belge. Section des Sciences Naturelles et Médicales.**

- a. SCHWETZ, J., 1947.—"La classification et la nomenclature des Planorbidæ (Planorbinæ et Bulininae) de l'Afrique Centrale et surtout du Congo Belge." 16 (2), 90 pp.

(533a) Schwetz monographs the genera and species of the two subfamilies Planorbinæ and Bulininae of Planorbidæ of Central Africa, with special reference to the identification of those acting as vectors of trematode infections in the Belgian Congo. R.T.L.

**534—Memorias do Instituto Butantan.**

- a. LEÃO, A. T. & EICHBAUM, F. W., 1947.—"Ação vermícida do óleo de cajú (*Anacardium occidentale*) e derivados. Experiências em cães." 20, 13-30. [English summary pp. 29-30.]
- b. EICHBAUM, F. W., 1947.—"Potenciação de ação vermícida do hexylresorcinol por detergentes. Experiências *in vitro* com ascaris de porco." 20, 203-218. [English summary pp. 217-218.]

(534a) Cashew nutshell oil and its main constituent, anacardic acid, eliminated 90-100% of *Ancylostoma caninum* and *Toxocara canis* from 26 dogs given a single dose of 4 gm. The drug was most effective in the crude form. R.T.L.

(534b) Eichbaum confirms Rogers' observation that mucus inhibits the anthelmintic activity of hexylresorcinol, but when hexylresorcinol is combined with detergents its vermícidal action on *Ascaris lumbricoides* var. *suís* is only slightly reduced in a medium containing mucus. The activating effect depends on certain quantitative relations between hexylresorcinol and the detergents. Tincture of cashew nutshell oil and its derivatives have a high potentiating effect on hexylresorcinol against ascarids suspended in saline solution. Whereas simple soaps are deprived of any potentiating effect in Tyrode's solution owing to the presence of calcium and magnesium ions, cashew nutshell oil and its derivatives, particularly the "anacid fraction", retain their potentiating effects. R.T.L.

**535—Memorias de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid. Serie de Ciencias Naturales.**

- a. LÓPEZ-NEYRA, C. R., 1947.—"Consideraciones sobre la sistemática actual de los ciclofilídidos." 9, 106 pp.
- b. LÓPEZ-NEYRA, C. R., 1947.—"Los Capillariinae." 12, 248 pp. [English summary pp. 213-214.]

(535a) López-Neyra reviews the systematics of cyclophyllidean cestodes, basing his main divisions on the nature of the uterus. A uterine opening distinguishes the Tetrabothriidae. The uterus persists either as a branched structure or as a sac in two well connected groups comprising respectively the Taeniidae and the subfamilies Hymenolepidinae, Dilepidinae, Anoplocephalinae and Ophryocotylinæ. The nature of the paruterine organs is useful for differentiating other groups. He considers that the hooks have little systematic value, for they have undergone considerable changes so that obviously related groups show distinct hook differences. P.A.C.

(535b) López-Neyra reviews the Capillariinae and considers that the relative length of the oesophagus, the presence or absence of a spicule, the character of the spicular sheath and the number of eggs are the most useful characters for classification. On this basis, the subfamily is assigned the six genera *Trichosomoides*, *Eucoleus* (definition emended), *Capillaria*, *Capillostrongyloides*, *Aonchotheca* n.g. and *Echinocoleus* n.g. (*E. cyanopicae* n.sp.).

t.sp. from *Cyanopica cyanus*). The genus *Aonchotheca* is differentiated by possessing a relatively short oesophagus, the males with or without spicule but with a non-spiny spicular sheath; it contains 22 species, including *A. putorii*. The genus *Echinocoleus* contains 23 species with relatively long oesophagus, numerous eggs in the female, and a spiny spicular sheath in the male. Several well known names become synonyms but he describes as new *Eucoleus railletii* n.sp. from the oesophagus of *Anas boschas*. [A short paper covering this work was published in *Rev. Ibér. Parasit.*, 1947, 7 (2), 191-238. For abstract see *Helm. Abs.*, 16, No. 315d.] P.A.C.

### 536—Minerva Chirurgica. Turin.

- a. GIUSTI, A., 1947.—“Cisti da echinococco del fegato recidivante dopo 25 anni dall'intervento chirurgico.” 2 (8), 299-300.

### 537—Minerva Medica.

- a. BONDI, R., 1947.—“Sull'importanza clinica delle parassitosi da ascaridi.” Anno 38, 1 (10), 270-274.

### 538—Minnesota Medicine.

- a. LEIGHTON, R. S. & WEISBERG, R. J., 1947.—“Intestinal ascaris diagnosed roentgenographically in Minnesota.” 30 (4), 410-411.
- b. NELSON, C. B., 1947.—“Trichinosis in Minnesota.” 30 (6), 640-641.

(538b) Nelson reports on an outbreak of 37 clinical cases of trichinosis with onset of symptoms between 20th and 29th January 1947. The patients were chiefly of Central European origin, and in 30 cases were known to have eaten smoked “country sausage”, in 24 cases raw. The sausage had been prepared by a local butcher from trimmings of freshly killed pork, ground, seasoned, smoked for 24 hours at a temperature “that would not cause the sausage to shrink” and then refrigerated at 36°F. for one week. As trimmings from several pigs were used, the source of the infection could not be determined. E.M.S.

### 539—Miscellaneous Bulletin. Indian Council of Agricultural Research.

- a. INDIAN COUNCIL OF AGRICULTURAL RESEARCH, 1947.—“Animal disease investigation.” No. 65, 34 pp.

(539a) A survey by the Veterinary Investigation Officers employed by the Indian Council of Agricultural Research confirms that helminths constitute a major factor in deterioration of livestock in all the provinces of India. The losses are stated to be enormous. “Pitto” or “gillar” caused by immature paramphistomes has been fairly successfully treated by copper sulphate, nicotine sulphate and thymol. Nasal granuloma due to *Schistosoma spindale* has been treated effectively by tartar emetic. Stephanofilariasis has been cured by thermocautery followed by an ointment containing tartar emetic. Fascioliasis has been treated with carbon tetrachloride, and the molluscan vector in tanks and reservoirs controlled by copper sulphate. Cutaneous haemorrhages due to *Parafilaria bovicola* and *P. multipapillosa* occurring in Sind, Hyderabad and Bombay have been effectively treated with tartar emetic. In the United Provinces helminthiasis in poultry is extremely high. A 3% solution of trypan-blue expelled *Ascaridia lineata*, and “sajji-khar”, a country drug, was effective against *Railletina*. R.T.L.

### 540—Mississippi Farm Research.

- \*a. PRESLEY, J. T., 1947.—“Good control of nematodes by fumigants.” 10 (8), 1.

### 541—Monatshefte für Veterinärmedizin.

- \*a. GLÄSSER, 1947.—“Distomatose, Enteritisbakterieninfektion und Kälberparatyphus.” 2, 39-40.
- \*b. GÜTHERT, H., 1947.—“Zur Kenntnis der Lungenveränderungen Rehwildes nach Strongylidenbefall.” 2, 132.



542—*Monitore Zoologico Italiano*.

- a. ROMANINI, M. G., 1947.—“Contributo alla conoscenza istochimica di vitellogeni di *Distoma hepaticum*.” 56 (1/6), 16–19.

(542a) Histochemical study of the vitellaria of *Fasciola hepatica* has shown that as in other platyhelminths the vitelline granules contain free di- or polyphenols. It is now shown that these granules are fixed by organic solvents such as methyl or ethyl alcohols. The inclusions in the vitelline cells also give a positive Bauer's reaction for glycogen, but the granules containing glycogen are separate from those containing phenols. The granules have no characteristic fluorescence under ultraviolet light. Their colour, which increases progressively by a process of maturation, is not due to melanin or promelanin. It is concluded that the phenolic substance present in the vitellaria is a pure intrinsic pigment. E.M.S.

543—*Natur und Volk*.

- a. FRANKENBERG, G. v., 1947.—“Beobachtungen über den Fressakt des Vielfrass-Egels (*Haemopis sanguisuga*).” 77 (1/3), 16–19.

544—*Nature*. London.

- a. BRINKMANN, Jr., A., 1947.—“Two new antarctic leeches.” [Correspondence.] 160 (4074), 756.

(544a) *Trulliobdella capitis* n.g., n.sp. was collected from between the eyes of *Parachaenichthys georgianus* and *Chaenocephalus bouvetensis*. It is most nearly related to *Pterobdellina*, *Pterobdella* and *Phyllobdella*, but having a “fold organ” between the intestine and rectum it resembles *Branchellion*. *Cryobdellina bacilliformis* n.g., n.sp. occurred in the oral cavity of *Parachaenichthys georgianus*. It resembles *Cryobdella* in possessing four testis sacs, in the arrangement of the posteriorly directed caeca, in its diminutive size and Antarctic distribution, but has eyes on the oral and posterior suckers as well as on the most anterior annuli, and has four distinct lateral intestinal pouches. Moreover the mouth is placed centrally in the bell-shaped oral sucker which is heptagonal in outline.

R.T.L.

545—*Naturwissenschaften*. Berlin.

- a. KIKUTH, W., GÖNNERT, R. & MAUSS, H., 1947.—“Miracil, ein neues Chemotherapeuticum gegen die Darmbilharziose.” Year 1946, 33 (8), 253.

(545a) Kikuth, Günnert & Mauss give a brief account of their efforts since 1936 to find a drug which could be given orally and would be suitable for mass treatment of schistosomiasis mansoni. A large number of drugs were tested in experimentally infected white mice, and in 1938 miracil-A was discovered and was found to be effective against *Schistosoma mansoni*. Intensified research into related compounds, with biological testing in white mice and monkeys, culminated in the discovery of 1-diethylaminoethylamino-4-methylthioxanthone hydrochloride, miracil-D. The chemical properties of the drug are outlined. The chemotherapeutic index in the mouse is 1:4, and it is thus inferior to many related compounds with indexes up to 1:30, but its efficacy in monkeys makes it the most effective compound known. The toxicity is unknown since doses over 800 mg. per kg. body-weight are vomited. The advantages of the drug are its oral administration, and its effectiveness in one or two small doses, so that lengthy courses of treatment are not required.

E.M.S.

546—*Nebraska State Medical Journal*.

- a. ZINNEMAN, H. H., 1947.—“Ankylostomiasis.” 32 (5), 185–186.

## 547—Nederlands Indische Bladen voor Diergeneeskunde.

- a. KRANEVELD, F. C. & DJAENOEDIN, R., 1947.—“Rapport over een onderzoek naar de oorzaak van ziekte- en sterfgevallen onder geiten op het Particuliere Land Tjakoeng en daarop aansluitende proeven over de waarde van diverse behandelingsmethoden van worminfecties bij geiten en schapen.” 54 (6), 262-274. [English summary p. 274.]

(547a) Kraneveld & Djaenoedin report that ill-health and mortality amongst cross-bred and indigenous goats were due to general parasitism. *Paramphistomum cervi*, *Haemonchus contortus*, *Oesophagostomum columbianum*, *Trichuris ovis*, *Trichostrongylus* spp. and *Moniezia denticulata* [= *M. expansa*] were present. The animals were also infected with *Eimeria arloingi*. Various worm cures such as the South African remedies (“W.W.R.”, “Tetram” and nodular worm remedy), sulphanilamide, copper sulphate and nicotine, “Nema” capsules, phenothiazine and others were tried. Phenothiazine proved to be the most effective against *H. contortus* and *O. columbianum*. It was less satisfactory against *Trichuris* and *Trichostrongylus* spp. Goats tolerated phenothiazine well but the high cost of this substance may prohibit its general use in native-owned stock. P.L.ler.

## 548—Nederlandsch Tijdschrift voor Geneeskunde.

- a. KEIZER, D. P. R., 1947.—“Cave phenothiazinum.” 91ste Jaargang, 1 (8), 424-427. [English, French & German summaries p. 427.]
- b. ROCHAT, G. F., 1947.—“Merkwaardig gedrag van dierlijke parasieten.” 91ste Jaargang, 1 (8), 469-470.
- c. THIEL, P. H. VAN, 1947.—“De ontwikkeling van *Prosthenorchis spirula* en de perforatie van den darmwand door parasieten.” [Demonstration.] 91ste Jaargang, 2 (20), 1277-1278. [Discussion p. 1278.]
- d. HOFMANS, A., 1947.—“De behandeling van actieve oxyuriasis.” 91ste Jaargang, 2 (22), 1389-1392. [English, French & German summaries p. 1392.]
- e. BLOEM, T. F., HUYSINGA, J. K. & WILDERINK, G. C., 1947.—“De behandeling van oxyuriasis met phenothiazine.” 91ste Jaargang, 3 (29), 1946-1953. [English, French & German summaries pp. 1952-1953.]
- f. BRUYNE, J. I. DE, 1947.—“Een geval van besmetting met de rattenlintworm bij de mens.” 91ste Jaargang, 3 (29), 1986-1988. [English, French & German summaries pp. 1987-1988.]
- g. BIJLMER, J., 1947.—“Over het opsporen van protozoën en eiren van enkele wormsoorten in de menselijke faeces.” 91ste Jaargang, 4 (40), 2820-2828. [English, French & German summaries p. 2828.]
- h. KEIZER, D. P. R., 1947.—“Enige opmerkingen over de behandeling van oxyuriasis.” 91ste Jaargang, 4 (45), 3202-3206. [English, French & German summaries pp. 3205-3206.]
- i. HULSHOFF, A. A., 1947.—“Demonstratie.” [Clonorchis in a Chinese.] 91ste Jaargang, 4 (47), 3400-3401. [Discussion p. 3401.]
- j. KOOY, P., 1947.—“Een geval van filariasis bancrofti.” 91ste Jaargang, 4 (48), 3481-3486. [English, French & German summaries p. 3486.]

(548a) Keizer describes in great detail the blood picture of a 2-year-old child who was very anaemic and in a state of collapse after having received 9 gm. of phenothiazine over a period of six days for the treatment of enterobiasis. Thionol was still present in the urine on the seventh day, and in the faeces on the eighth day after treatment was discontinued. It is believed that there was an accumulation of the drug in the body. Keizer suggests that the correct dosage of phenothiazine for children should be determined, and warns practitioners against the careless use of a remedy which is very toxic for children, as is evident from published reports. Blood transfusions and the administration of 66 “Fertaron” tablets brought about a rapid recovery. P.L.ler.

(548b) Rochat reports on two parasites which produced lesions in the eyes of two children, the first being due to the larva of a horse fly (*Gastrophilus* sp.). The second case showed a slight inflammation and a hypopyon of the left eye. The only systemic abnormality was a mild eosinophilia which was attributed to oxyuriasis as no other eggs of helminths were present in the faeces. As the condition did not improve the eye was ultimately enucleated and a small nodule, completely encapsulated by fibrous tissue, was encountered. Ten strongly curved small hooks, resembling most closely those of *Taenia solium*, were



observed in the capsule. These hooks were much smaller than those observed in a microscopic preparation of an armed cysticercus from the eye of another case. It is believed that the encapsulation and death of the parasite took place before the hooks had become fully developed. P.L.ler.

(548d) Hofmans considers that only "active" cases of enterobiasis should be treated. Phenothiazine is preferred to gentian violet as an anthelmintic for this condition. E.M.S.

(548e) Bloem, Huysinga & Wilderink review briefly some of the more recent contributions dealing with the pathology, diagnosis and treatment of enterobiasis in man. They treated 123 persons and conclude that phenothiazine is an excellent cure for enterobiasis provided that treatment is carried out under strict medical supervision. Patients suffering from severe anaemia and affections of the kidneys and liver should not receive this drug. A method for testing the purity of phenothiazine is described, and only preparations free from the haemolytic substance diphenylamine should be used. Medication with phenothiazine was accompanied by the application of a lotion containing tumenol ammon. 1, zinc oxide 4, Venetian talc 4, anaesthesin 1, glycerin 4, spirit. ket. dil. ad 100. Females which came in contact with this lotion appeared to die immediately and the eggs failed to hatch. Mercury ointment did not kill the females rapidly and hatching of the eggs was not arrested. The authors describe the blood picture, etc. of a case of haemolytic anaemia in a child that had been overdosed. They recommend that phenothiazine be administered for two consecutive days and the treatment repeated three weeks later. Dosage is according to age: for 2-3-year-old children 1.25 gm.; 4-8 years 2.5 gm.; 8-13 years 3.75 gm.; 13-18 years 5.0 gm. and adults 7.5 gm. A method for the determination of the amount of phenothiazine which is excreted in the urine is described. P.L.ler.

(548g) Bijlmer compares the efficiency of various techniques employed for the detection of protozoa and the eggs of certain helminths in human faeces. In the case of repatriated persons suspected to be infected with *Ascaris*, *Trichuris*, *Ancylostoma*, *Taenia* and *Strongyloides* he applied the methods of Faust, Fülleborn, Hein, van Brug, and the direct and the simplified zinc sulphate flotation method. His findings prove that Fülleborn's method was the most efficient for *Ancylostoma*, *Trichuris* and fertile eggs of *Ascaris*, and van Brug's for *Strongyloides* larvae. Finally he observes that the direct examination of faeces in a wet preparation is satisfactory in cases of *Ascaris lumbricoides*, *Ancylostoma duodenale* and *Necator americanus*, and that a concentration method is not necessary for the detection of *Ascaris*, hookworms and *Trichuris* infections. P.L.ler.

#### 549—New Orleans Medical and Surgical Journal.

- a. SWARTZWELDER, J. C., 1947.—"Echinococcus infection (hydatid disease) in Louisiana." 99 (12), 617-619.

#### 550—New York State Journal of Medicine.

- a. STEBBINS, E. L., 1947.—"A program for the control of tropical and parasitic diseases in New York City." 47 (3), 282-285. [Discussion p. 285.]
- b. HOLLA, W. A. & LANE, E. A., 1947.—"Report of an itching dermatitis apparently due to *Schistosoma cercariae*." 47 (22), 2458.

(550b) An outbreak of dermatitis at Interlaken Lake, Westchester Co., N.Y., appeared to be due to schistosome cercariae. Specimens of *Physa heterostrophra* collected there yielded cercariae which produced the typical rash in three volunteers. Ducks in the area were found to carry *Trichobilharzia physellae*. E.M.S.

#### 551—New Zealand Journal of Agriculture.

- a. GERRING, J. C., 1947.—"Weaning calves and lambs. Importance of grazing management and care against internal parasites." 75 (6), 603, 605-606.

(551a) At Ruakura 5-50% of the "set-stocked" calves (maintained in a paddock until its unsatisfactory condition made a change necessary) which began the winter with

a deficiency of 60 lb. in weight as compared with rotationally grazed calves, suffered losses from helminths despite routine drenching. The weight deficiency had increased to 140 lb. at the yearling stage in those which survived. Among the calves rotationally grazed without drenching, there were no deaths although the worm burden was almost as heavy. Gerring recommends (i) rotational grazing, (ii) use of adult cattle, horses and sheep to clean infected pastures, (iii) treatment of lambs at weaning, (iv) avoidance of overstocking, and (v) increase of resistance by better feeding and management. R.T.L.

#### 552—Nordisk Medicin.

- a. JØRGENSEN, J. V., 1947.—“Baendelormekur (extractum filicis) med letal udgang. (Lip aspirations pneumoniae).” 35 (33), 1707–1708. [English summary p. 1708.]

#### 553—Norsk Veterinaer-Tidsskrift.

- a. SVENKERUD, R. R., 1947.—“Et tilfelle av invasjon av *Spirocerca sanguinolenta* hos blårev.” 59 (7), 193–201. [English summary p. 201.]

(553a) *Spirocerca sanguinolenta* is reported from Norway for the first time, in a blue fox. Hu & Hoeppli's theory that the larvae traverse the media of the arteries of the stomach to reach the aorta is held to be correct. R.T.L.

#### 554—Notas del Museo de La Plata.

- a. RINGUELET, R., 1947.—“Notas sobre hirudíneos neotropicales. III. *Theromyzon propinquus* nov.sp., de la Argentina.” 12, 217–222.

(554a) A single specimen of leech found on a *Percichthys trucha* in the Rio Colorado is described and illustrated as *Theromyzon propinquus* n.sp. E.M.S.

#### 555—Nuova Veterinaria.

- \*a. PIETRO, M., 1947.—“Il cloroformio nella cura delle verminosi intestinali dei cani.” 23, 176.  
\*b. PELLEGRINO, A., 1947.—[Gapeworm disease (*Syngamus trachea*) in fowls with special reference to its treatment.] 23, 245–253.

#### 556—Ophthalmologica. Basle.

- a. ROCHAT, G. F., 1947.—“Remarkable behaviour of animal parasites.” 113 (4), 249–250.  
b. APPELMANS, M., 1947.—“La kératite ponctuée superficielle chronique par *Onchocerca volvulus*.” 114 (3), 129–146. [English & German summaries p. 145.]  
c. PACHECO LUNA, R., 1947.—“Notes on onchocerciasis in Guatemala.” 114 (6), 430–432.

(556a) [This article has already appeared in Dutch in *Ned. Tijdschr. Geneesk.*, 1947, 91ste Jaargang, 1 (8), 469–470. For abstract see above No. 548b.]

(556c) [This article has already appeared in *Brit. J. Ophthal.*, 1946, 30 (4), 234–237. For abstract see Helm. Abs., 15, No. 179b.]

#### 557—Orchardist of New Zealand.

- a. JACKS, H. & WRIGHT, L., 1947.—“A useful soil injector.” 20, pp. 8–9. [5th February.]  
b. JACKS, H., 1947.—“Implements for soil disinfection.” 20, pp. 10–12. [5th April.]

(557a) Jacks & Wright describe and illustrate a newly designed hand soil injector. The instrument, which is made entirely of brass, consists of three parts only and gives approximately 98% accuracy. The single cardboard washer is easily replaceable. R.T.L.

(557b) Jacks describes and illustrates a graduated burette for the application of fumigants to soil, a hand injector [see preceding abstract], and discusses the merits and disadvantages of various types of machines which have been manufactured for the injection of large areas. R.T.L.



**558—Palestine Journal of Botany. Rehovot Series.**

- a. CHORIN, M. & MINZ, G., 1947.—“Nematodes on gladiolus corms.” 6 (1/2), 221–222.

(558a) The authors describe the lesions produced on gladiolus corms by *Heterodera marioni*. Blister-like protuberances which become black and split occur on the lower surface of the infected corms, chiefly between the basal plate and the lower end of the first and second bulb scales. Several cases have been recorded in Palestine where *H. marioni* is also known on over 200 other hosts.

M.T.F.

**559—Pamphlet. Iowa State College of Agriculture Extension Service.**

- a. STOUDEER, K. W. & McDONALD, C. W., 1947.—“Stomach worms and nodule worms of sheep.” No. 130, 8 pp.

**560—Papers and Proceedings of the Royal Society of Tasmania.**

- a. HICKMAN, V. V., 1947.—“*Pontobdella tasmanica* nom.nov. (Hirudinea).” Year 1946, p. 27.

(560a) As *Pontobdella verrucosa* Hickman, 1941 is preoccupied by *P. verrucosa* Leydig, 1851, it is now renamed *P. tasmanica* nom.nov.

R.T.L.

**561—Parasitica. Gembloux, Belgium.**

- a. RODHAIN, J., 1947.—“La thérapeutique actuelle des filarioses.” 3 (1), 38–43.  
b. TERACHE, P. & BIENFET, V., 1947.—“L'influence du pH en chimiothérapie antihelminthique digestive.” 3 (4), 146–158.

(561a) Rodhain briefly summarizes published work on the treatment of filarial infections. The recent influx into Leopoldville of large numbers of natives among whom there were doubtless carriers of *Onchocerca* has resulted in the infection of *Simulium damnosum*, and accounts for the present prevalence of onchocerciasis among the white population there.

R.T.L.

(561b) Terache & Bienfet have continued their examination of the influence of pH in anthelmintic action [see also Helm. Abs., 16, No. 180d]. They now discuss santonin, arecolin and thymol and further discuss the action of phenothiazine on horse *Ascaris* and *Strongylus*. An experiment is described to show the effect of living *Ascaris lumbricoides* in lowering the pH of a buffered solution containing phenothiazine.

E.M.S.

**562—Pediatriya. Moscow.**

- a. CHERNINA, E. I., 1947.—[Phenothiazine in therapy of oxyuriasis.] No. 6, pp. 67–68. [In Russian.]

**563—Pharmazie. Berlin.**

- a. ERHARDT, A., 1947.—“Die biologischen Grundlagen für die Klinische Beurteilung der Wirkung von Oxyurenmitteln.” 2 (3), 104–109.

(563a) Erhardt emphasizes the difficulty of evaluating drugs used against enterobiasis, because of the conflicting effects of the very short life of the worm which tends to spontaneous cure, and the great ease of reinfection which tends to mask the action of effective drugs. Furthermore, the eggs will not hatch *in vitro*, so that drugs cannot be tested in this way. Faecal examination is useless to demonstrate the presence of the parasite. After dosage with an effective drug, the worms may be killed and digested and thus fail to appear in the faeces. Critical tests in rabbits, with all these factors considered, showed that many common drugs such as aluminium acetate, Helminal, Butolan, pyrethrum extract and santonin were completely ineffective. Ascaridol and male fern extract were 100% effective, although only at high dose rates. The equally effective Lubisan and thymol both show a relatively high therapeutic index.

E.M.S.

**564—Philippine Journal of Science.**

- a. TUBANGUI, M. A., 1947.—“A summary of the parasitic worms reported from the Philippines.” 76 (4), 225-304.
- b. TUBANGUI, M. A. & BASACA, M., 1947.—“Notes on the anthelmintic properties of the latex of papaya (*Carica papaya* Linn.) and of ‘isis’ (*Ficus ulmifolia* Lam.).” 77 (1), 19-24.
- c. REFUERZO, P. G., 1947.—“The treatment of fascioliasis in dairy cattle and in Indian buffaloes with hexachlorethane and kamala extract.” 77 (1), 25-37.

(564a) Tubangui lists the 336 species of helminths recorded from the Philippines up to 1946. Of these, 126 are trematodes, 54 cestodes, 138 nematodes, 2 Gordiacea and 16 Acanthocephala. They occurred in 18 species of mammals, 51 of birds, 10 of reptiles, 2 of amphibians, 29 of fishes, 9 of arthropods and 8 of molluscs. The list of references includes 280 titles.

R.T.L.

(564b) Of nine plant species tested, the latex of *Carica papaya* and *Ficus ulmifolia* was found to possess anthelmintic properties. Papaya was 100% effective against dog ascarids, 79.6% against human *Ascaris* and 71% against *Trichuris*. *Ficus ulmifolia* latex was 100% effective against *Ascaris* and 93.6% against *Trichuris*. Both were inactive against hookworms.

E.M.S.

(564c) Dosage of 52 bovine animals against *Fasciola hepatica* and *F. gigantica* with 10 gm. hexachlorethane and 1.75 gm. kamala extract per 30 kg. body-weight in two equal daily doses gave encouraging results (91.22% efficacy). The animals tolerated the drug well, but not when the whole dose was given at once or when the whole dose was repeated on two consecutive days. Young flukes were not affected. The remedy seemed promising also against the amphistomes (*Cotylophoron cotylophorum*, *Paramphistomum cervi* etc.) E.M.S.

**565—Philippine Livestock Magazine.**

- \*a. JESUS, Z. DE, 1947.—“Control of swine kidney worm.” 1, 16-17, 35.

**566—Policlinico (Sezione Pratica).**

- a. MAGGIO, P., 1947.—“A proposito di nuovi segni radiologici nella diagnosi dell'echinococco del polmone.” 54 (2), 55.
- b. POZZI, A. & TOSATTI, E., 1947.—“Sopra un caso di cisti da echinococco gigante localizzata unicamente al mediastino anteriore.” 54 (16), 397-402.
- c. CANOVA, F., 1947.—“Ascaridiosi e vitamina C.” 54 (28), 776-777.
- d. BALDELLI, R., 1947.—“Sopra un caso di cisti da echinococco della milza—splenectomia—guarigione.” 54 (46), 1242-1245.
- e. ASTRALDI, F., 1947.—“Sulla sintomatologia addominale della anchilostomiasi: contributo alla conoscenza delle sindromi pseudo-ulcerose.” 54 (48), 1304-1309.

**567—Polski Przegląd Chirurgiczny.**

- \*a. STEPIEN, L., 1947.—[Surgical therapy of cerebral cysticerciasis.] 19, 103-107.

**568—Polski Tygodnik Lekarski. Warsaw.**

- a. ALKIEWICZ, J. & BOLECHOWSKI, F., 1947.—“Spostrzeżenia kliniczne i badania histopatologiczne zjawiska bielactwa mglawego paznokci w przebiegu włośnicy.” [Histopathologic study of leukonychia in trichinosis.] 2 (42), 1200-1204.

**569—Praxis. Berne.**

- a. DUBOIS, M., 1947.—“Ungewöhnlicher postoperativer Verlauf nach einfacher Herniotomie (Askaridenileus, arterielle Bein thrombose).” [Demonstration.] 36 (9), 148.
- b. BAER, J. G., 1947.—“L'adaptation des parasites à leurs hôtes.” 36 (48), 803-806.

**570—Prensa Médica Argentina.**

- a. GÓBICH, E. & PRIETO, C., 1947.—“Equinococosis hidatídica del corazón.” 34 (17), 773-780.
- b. MARRUGAT, O. L. & BAZTARRICA, J. M., 1947.—“Quiste hidatídico del ligamento ancho.” 34 (20), 900-902.



## 571—Prensa Médica Mexicana.

- \*a. MONNIER MILLOTTE, A. & TREVIÑO VILLASEÑOR, A., 1947.—“Nueva modalidad en el empleo del violeta de genciana para el tratamiento de la oxiuriasis.” 12, 185-187.

## 572—Presse Médicale.

- a. BRUMPT, L. C., 1947.—“Utilisation de la cellophane adhésive pour le diagnostic pratique de l'oxyurose.” 55 (28), 321.

(572a) Brumpt used the adhesive cellulose tape method in examining the members of a boys' club, finding 58 out of 62 positive for *Enterobius* eggs at the first examination (93.5%). Two of the four negative cases were re-examined and found positive. The ease and cheapness of the method are strongly commended. E.M.S.

## 573—Proceedings of the American Society for Horticultural Science.

- a. DORMAN, S. C. & MINGES, P. A., 1947.—“Results on the control of rootknot nematode in vegetable plant beds.” 50, 317-320.

(573a) Dorman & Minges treated vegetable seed-beds infested with *Heterodera marioni*, with D-D mixture at 400 lb. per acre in triplicated 6 ft. square plots in the following three ways: (i) injected 5 in. deep at 12-in. spacing; (ii) applied by emulsifying 125 ml. D-D in 56 gal. water; (iii) half the dose as in (i) plus half as in (ii); there were also 3 control plots. Water emulsions were used in order to deal with the upper soil layer. Cabbage and tomato seedlings were used as test plants, both in the experimental seed-beds and after transplanting into clean land. All treatments showed a marked but incomplete reduction of root galls, the results being slightly better in the two treatments in which emulsions were used. B.G.P.

## 574—Proceedings of the Canadian Phytopathological Society.

- a. VANTERPOOL, T. C., [1947.]—“*Ditylenchus radicola*, a nematode parasitic on the roots of wheat and other graminaceous hosts.” [Abstract of paper presented at the 14th Annual Meeting of the Canadian Phytopathological Society, Lethbridge, Alta., June 23-26, 1947.] No. 15, p. 17.
- b. HURST, R. R., [1947.]—“The potato ro nematode, *Ditylenchus destructor*, in P.E.I.” [Abstract of paper presented at the 14th Annual Meeting of the Canadian Phytopathological Society, Lethbridge, Alta., June 23-26, 1947.] No. 15, p. 17.

(574a) [A fuller account of this paper appears in *Sci. Agric.*, 1948, 28 (5), 200-205—for abstract see *Helm. Abs.*, 17, No. 127a.]

(574b) Hurst reported that the potato tuber-rot nematode, *Ditylenchus destructor* Thorne, had been found on six farms only in Prince Edward Island. Seed treatment with standard disinfectants was quite ineffective in controlling the pest and all varieties of potatoes tested (10 in number) proved susceptible to attack. Field mint (*Mentha arvensis*) was found capable of serving as a host of the parasite but no other weed or cultivated host plant was found affected. Tubers from plots treated with the soil fumigant Dowfume W-10 graded 99.2% clean in April 1947 in contrast to 55.6% clean from unfumigated plots. T.G.

## 575—Proceedings of the Hawaiian Academy of Science.

- a. ALICATA, J. E., 1947.—“Murine leptospirosis and parasites of man on Truk and Ponape, Eastern Carolines.” [Abstract.] 22nd Annual Meeting, Year 1946-1947, p. 6.

(575a) The incidence of helminth infections in 50 stools and 150 blood films examined on Ponape was: microfilariae of *Wuchereria bancrofti* 14%, hookworm 76%, *Ascaris* 44%, *Trichuris* 94%, *Strongyloides* 2%. The incidence in 26 stools and 29 blood films obtained on the island of Moen, Truk Atoll, was: microfilariae of *Wuchereria bancrofti* 20.6%, hookworm 57.6%, *Ascaris* 50%, *Trichuris* 88.4%, *Strongyloides* 11.5% and *Enterobius* 3.8%. R.T.L.

## 576—Proceedings of the Indian Science Congress.

- a. KUNDU, B. C., 1947.—“A note on the infection of jute plants by nematodes.” [Abstract.] 33rd (1946), Part III, pp. 113-114.
- b. DAYAL, J., 1947.—“On a new trematode *Neoprosorhynchus purius* n.gen., n.sp. from the intestine of a fish *Epinephelus lanceolatus* (Bl.).” [Abstract.] 33rd (1946), Part III, p. 120.
- c. BHALERAO, G. D., 1947.—“*Clinostomum kalappahi* n.sp. (Trematoda) from the mouth of cats in the Coorg.” [Abstract.] 33rd (1946), Part III, p. 120.
- d. BHALERAO, G. D., 1947.—“Intermediate hosts of *Dicrocoelium dendriticum* in India.” 33rd (1946), Part III, p. 120.
- e. DEO, P. G., 1947.—“On the life-history of *Trichuris ovis*.” [Abstract.] 33rd (1946), Part III, p. 120.
- f. MOGHE, M. A. & CHAUHAN, B. S., 1947.—“Blood flukes infection (schistosomiasis) in the cattle, goats and sheep of the Central Provinces and Berar and Central India.” [Abstract.] 33rd (1946), Part III, p. 121.
- g. BHATIA, M. L., 1947.—“*Limnatis nilotica*, a leech causing laryngo-pharyngitis in man.” [Abstract.] 33rd (1946), Part III, pp. 121-122.
- h. FAROOQ, M. & QUTUBUDDIN, M., 1947.—“A report on the incidence, distribution, and epidemiology of filariasis in the central portion of H.E.H. the Nizam's Dominions.” [Abstract.] 33rd (1946), Part III, p. 143.

(576a) Peculiar swellings and gall-like outgrowths due to nematodes occurred on about 60% of the jute plants grown in the garden of the Presidency College in Calcutta. The *Corchorus olitorius* plants were stunted and died before flowering. Those of *C. capsularis*, although infected, were not seriously damaged but the flower development was also poor. R.T.L.

(576b) *Neoprosorhynchus purius* n.g., n.sp. from *Epinephelus lanceolatus* differs from *Prosorhynchus* and *Pseudoprosorhynchus* in the relative position of testes, ovary and vitelline glands, and in the possession of a Y-shaped excretory bladder. R.T.L.

(576c) *Clinostomum kalappahi* n.sp. is reported from under the tongue and attached to the buccal wall of cats. It is distinguished from other clinostomes thus: (i) the collar at the anterior end is not continuous, its ends being juxtaposed ventrally; (ii) the anterior testis is U-shaped; (iii) the genital pore lies behind the cirrus, ventrally to the anterior testis; (iv) the centre of the body, anterior to the ventral sucker, is crowded with non-cellular glands. R.T.L.

(576d) *Macrochlamys (Euaustenia) cassida*, the commonest land snail in the Kumaon Hills in Northern India has been shown experimentally to serve as an intermediate host of *Dicrocoelium dendriticum*. Bhalerao recalls that in 1930 he found typical cercariae in naturally infected *M. (E.) monticola* in the same region. R.T.L.

(576e) Aerated distilled water is the best medium for the development of eggs of *Trichuris ovis*. Embryos actively move within the egg shell in 13 to 15 days. After about six weeks they become inactive. A muzzled lamb fed only on milk and tree leaves was infected with embryonated eggs and on its death, 50 days later, 685 immature worms were found in the small intestine and four in the stomach. R.T.L.

(576f) The Central Provinces and Berar area is the part of India most heavily infected with schistosomiasis of ruminants. Epidemics of “snoring disease” of cattle occur occasionally, particularly in Bihar and Orissa. R.T.L.

(576g) Bhatia recalls that he had reported *Limnatis nilotica* as a pharyngeal parasite in man in India to the Indian Science Congress of 1941. This leech can easily be removed if after it has been seized in forceps an irritant is applied, e.g. 50% acetic acid, trichloroacetic acid, powdered salt or strong salt solution. R.T.L.

(576h) In 22 villages of Kamareddy and two of the Sirsilla taluks in the centre of Hyderabad State, *Culex fatigans* is the vector of *Wuchereria bancrofti*. Infection in apparently healthy persons is higher than in diseased persons in whom it is almost nil, and only these healthy persons are capable of transmitting the infection [no details are given]. R.T.L.



# 577—Proceedings of the Lenin Academy of Agricultural Sciences of U.S.S.R.

- a. SHUMAKOVICH, E. E., 1947.—[Chemical disinfection of faecal matter on pasture as a method of preventing equine strongylosis.] 12 (5), 40-45. [In Russian.]
- b. SKRYABIN, K. I., 1947.—[Soviet helminthology on the 30th anniversary of October.] 12 (12), 8-19. [In Russian.]

# 578—Proceedings of the Linnean Society of New South Wales.

- a. CROWCROFT, P. W., 1947.—"The anatomy of two new digenetic trematodes from Tasmanian food fishes." Year 1946, 71 (3/4), 108-118.

(578a) A bucephalid, *Telorchynchus arripidis* n.g., n.sp. from an *Arripis trutta* of the southern waters of Australia, which was purchased in the Hobart fish market, possesses yolk follicles in the form of an anterior arc and a conical rhynchus, but differs from *Prosorhynchus* in that the rhynchus is armed with a single circlet of spines interrupted in the mid-ventral line. *Helicometra neosebastodis* n.sp. from *Neosebastes thetidis*, also obtained from the Hobart fish market, differs from *H. tenuifolia* in the possession of lobed testes smaller than the acetabulum, and in the size and relative proportions of the body. The hosts also are different.

R.T.L.

# 579—Proceedings of the National Academy of Sciences, India. Section B.

- a. MEHRA, H. R., 1947.—"Studies on the family Cyathocotylidae Poche. Part 2. A contribution to our knowledge of the subfamily Prohemistominae Lutz, 1935, with a discussion on the classification of the family." 17 (1), 1-52.
- b. SHARMA, M. L., 1947.—"On a new species of the genus *Rhabdometra*, Cholodkovski (1906), family Dilepididae (Fuhrmann, 1907), subfamily Paruterininae (Fuhrmann, 1907) from the intestine of *Turodoides terricolor terricolor*." 17 (2), 67-74.
- c. VRAT, V., 1947.—"New trematodes of the family Echinostomatidae, Poche 1925—Part I. Genus—*Chaunocephalus*." 17 (3), 95-116.

(579a) Mehra considers that the genus *Szidatia* is synonymous with *Gogatea*, and creates the name *Gogatinae* nom.nov. to replace the *Szidatinae*. *G. serpentium* var. *indicum* n.var. is described. *Mesostephanus burmanicus* is redescribed and transferred to *Gogatea*. *Mesostephanus indicum* n.sp. and *Prohemistomum odhneri* n.sp. from *Buteo rufinus* taken near Allahabad are described. *Paracoenogonimus* and *Linstowiella* are made synonyms of *Prohemistomum*. The genus *Travassosella* is transferred to the *Prosostephaninae*. A synopsis of the five subfamilies of the Cyathocotylidae, namely Cyathocotylinae, Prohemistominae, Gogatinae, Pharyngostominae and Prosostephaninae, is given with a key to the genera and species.

P.A.C.

(579b) *Rhabdometra terricoli* n.sp., a parasite of *Turodoides terricolor* in Allahabad, has 12-16 testes arranged along the posterior border of the proglottid on either side of the ovary. The ovary becomes converted into a uterus, from the aporal end of which the paruterine organ develops.

P.A.C.

(579c) Vrat describes five new echinostomids. They are *Chaunocephalus leucocephalus* n.sp. from the intestine of *Ibis leucocephalus* in the United Provinces, *C. travassosi* n.sp. from *Antigone antigone*, *C. odhneri* n.sp. and *C. kirati* n.sp. from *Anastomus oscitans*, and *C. elongatus* n.sp. from *Anhinga melanogaster*.

P.A.C.

# 580—Proceedings of the Royal Society of Medicine.

- a. WATSON, J. M. & MAC KEITH, R. C., 1947.—"Demonstration: diagnosis of threadworms." 40 (9), 539-540.

# 581—Proceedings of the Tennessee State Horticultural Society.

- \*a. McDANIEL, J. C., 1947.—"Finding nematode-resistant and winter-hardy peach stocks." Year 1946, 41, 73-77.

**582—Proceedings. United States Livestock Sanitary Association.**

- \*a. SWANSON, L. E., 1947.—“Livestock parasite problems in the southeast.” 50th (1946), pp. 91-95.
- \*b. UNITED STATES LIVESTOCK SANITARY ASSOCIATION, 1947.—“Report of Committee on Parasitic Diseases.” 50th (1946), pp. 96-101.

**583—Progress Report. Texas Agricultural Experiment Station.**

- a. MOHR, H. C., GREULACH, V. A. & DUNLAP, A. A., 1947.—“Recent studies on southern blight and root knot of tomatoes.” No. 1092, 2 pp.

(583a) Mohr, Greulach & Dunlap give a brief account of work done on tomato hybrids obtained by crossing selections from the South American species *Lycopersicon peruvianum* (which showed resistance to *Heterodera marioni*) with *L. esculentum*. When grown in highly infective soil, some of the hybrids proved tolerant to attack by the parasite and, although root-knot developed on them, the plants were not severely stunted and produced a fair yield of fruit.

T.G.

**584—Progresso Medico. Naples.**

- \*a. TORRACA, L., 1947.—“Considerazioni su alcuni interventi per cisti di echinococco.” 3, 97-107.
- \*b. IBBA, A. L., 1947.—“La diastasi e la lipasi pancreatica nel siero di sangue dei portatori di ciste da echinococco del fegato.” 3 (6), 165-169.
- \*c. MUSCETTOLA, G., 1947.—“Gastralgie e sindromi pseudo-appendicolari da ascaridiasi radiologicamente accertata.” 3 (10), 289-293.
- \*d. RUSSO, M. & SALIBRA, C., 1947.—“Su di un constatato aumento dei casi di cisti da echinococco nella Sicilia orientale; considerazioni su 74 casi di cui 4 in sede rara.” 3, 495-498.

**585—Public Health. Johannesburg.**

- a. WILKINS, A. J. W., 1947.—“Schistosomiasis in Salisbury, S. Rhodesia.” 11 (11), 4-6, 9-10.

(585a) In natives of Southern Rhodesia, *Schistosoma haematobium* eggs were found in the urine in 30% of 13,000 persons and in 8% of the stools of 9,400 persons. These high percentages indicate the difficulty of coping with the infection by mass chemotherapy. Wilkins favours, as an alternative, a campaign against the molluscan vectors. He reports success with the copper sulphate bag method of treating the banks of streams, and has found it economical to use his anti-malarial staff for this work.

R.T.L.

**586—Publicatie. Opzoekingsstation van Gorsem.**

- a. SOENEN, A., 1947.—“Lijst der voornaamste vijanden in land en tuinbouw, in 5 talen: Latijn — Nederlands — Frans — Engels — Duits.” No. 5, 27 pp.

(586a) The only helminths given are listed as: “*Aphelenchus fragariae*, *Heterodera radiculicola*, *Heterodera schachtii* and *Tylenchus devastatrix*”.

R.T.L.

**587—Puerto Rico Journal of Public Health and Tropical Medicine.**

- a. BENÍTEZ, J. N., 1947.—“Splenectomy in schistosomiasis. Preliminary report.” 23 (2), 247-255. [Also in Spanish pp. 256-265.]
- b. SANTIAGO-STEVENSON, D., OLIVER GONZÁLEZ, J. & HEWITT, R. I., 1947.—“Tratamiento de la filariasis bancrofti con Hetrazán (cloruro de 1-dietilcarbamil-4-metilpiperazina).” 23 (2), 294-304.

(587b) [This paper has also appeared in English in *J. Amer. med. Ass.*, 1947, 135 (11), 708-712. For abstract see *Helm. Abs.*, 16, No. 242a.]

**588—Quaderni di Radiologia. Belluno.**

- \*a. BELLOMI, L., 1947.—“Particolari espetti radiologici nell'ascaridiosi.” 11 (1), 33-36.



**589—Rassegna Internazionale di Clinica e Terapia.**

- a. CESARI, G., 1947.—"Schemi pratici: 16. Tumori e cisti da echinococco del polmone." 27 (13/14), 267-268.

**590—Rassegna Italiana d'Ottalmologia.**

- a. PEDICO, O., 1947.—"Cisticercosi dell'orbita sinistra." 16 (3/4), 149-165.

**591—Rassegna Medica Sarda.**

- \*a. BUSINCO, O., 1947.—"Radiodiagnostica dell'echinococcosi epatica." 49 (1/2), 67-73.  
b. GARAU, B., 1947.—"Sulla cisticercosi cerebrale e cardiaca." 49 (11/12), 339-368.

**592—Rassegna di Medicina Industriale. Turin.**

- a. ORLANDI, A., 1947.—"Ricerche sistematiche sull'anchilostomiasi nella popolazione rurale di Milano." 16 (3), 102-139.

(592a) Faecal examination of 37,975 persons in Milan showed 2,675 (7%) infected with hookworms, 5,253 (14%) with *Ascaris* and 9,541 (25%) with *Trichuris*. *Hymenolepis nana* was found in 927 (12.34%) children under 14 years of age. Of those with hookworms, 1,152 were males (6% of those examined), and 1,523 females (17.98%). The high incidence in women is explained by the preponderance of women in horticultural work, and by their habit of working barefoot. The clinical picture is detailed; eosinophilia averaged about 10%. Tetrachlorethylene treatment was successful in 2,543 cases, of whom 1,821 responded to the first administration, 651 were cured after a second treatment, and 71 required a third.

E.M.S.

**593—Records of the South Australian Museum.**

- a. JOHNSTON, T. H. & MAWSON, P. M., 1947.—"Some avian and fish nematodes, chiefly from Tailem Bend, South Australia." 8 (4), 547-553.  
b. JOHNSTON, T. H. & EDMONDS, S. J., 1947.—"Australian Acanthocephala, No. 6." 8 (4), 555-562.  
c. JOHNSTON, T. H. & BECKWITH, A. C., 1947.—"Larval trematodes from Australian fresh-water molluscs, Part XI." 8 (4), 563-583.

(593a) Johnston & Mawson describe *Capillaria gymnorhinae* n.sp. from *Gymnorhina hypoleuca*, *Amidostomum biziurae* n.sp. from *Biziura lobata*, *Ascarophis murrayensis* n.sp. from *Plectroplites ambiguus*, and give notes on other nematode species collected from a variety of birds and fishes in Australia.

E.M.S.

(593b) Johnston & Edmonds describe *Empodius alecturae* n.sp. from *Alectura lathamii* collected in Queensland. Specimens of *Filicollis sphaerocephalus* from *Larus novaehollandiae* and of *Prosthorhynchus charadrii* from *Charadrius cucullatus*, are also described; these species were previously recorded from South America and Japan respectively.

E.M.S.

(593c) Johnston & Beckwith describe *Cercaria lessoni* n.sp., a furcocercaria occurring naturally in *Planorbis isingi*, *Limnaea lessoni* and *Simlimnea subaquatilis*, and *Cercaria ameriannae* n.sp., a furcocercaria from *Amerianna pectorosa*. The adults are probably species of *Apatemon* and *Diplostomulum* respectively.

E.M.S.

**594—Rendiconti. Istituto Superiore di Sanità. Rome.**

- \*a. ORTALI, V., 1947.—"Cisti peritoneale contenente vari esemplari di *Cysticercus pisiformis* (Zeder) nel coniglio." 10, 956-960. [English summary.]

**595—Report of the Council for Scientific and Industrial Research, Australia.**

- a. McMASTER ANIMAL HEALTH LABORATORY, 1947.—“Parasitological investigations—internal parasites.” 21st (1946-47), pp. 27-28.

(595a) In this report helminthological investigations at the McMaster Animal Health Laboratory are summarized. There was very little destruction of *Haemonchus contortus* when 2.5 gm. to 12.5 gm. of phenothiazine was injected directly into the rumen of sheep. The action of phenothiazine against *Trichostrongylus* spp. in sheep was enhanced by doses of 59 gm. or more: the dosage rate should not fall below 25 gm. for sheep of 10-12 months old. For “pimpily gut” due to *Oesophagostomum columbianum* phenothiazine was more effective when given as a drench than as an enema; the larvae in the bowel wall were not affected by treatment but continued to emerge for many months. Phenothiazine appears to act by inhibiting an enzyme, acid phosphatase, present in the parasite’s tissues. Phenothiazine ingested from salt licks has no appreciable anthelmintic effect and stains the fleece to a marked degree. Sheep nematodes produce amines which may be toxic to the host. Fasting reduced the egg output of *Haemonchus* and *Trichostrongylus*. Sheep on a poor diet required 12-120 days to throw off a natural infection while those on a diet which enabled them to gain weight required only 6-43 days; those on the poorer diet were highly susceptible to subsequent experimental infestation. Studies on “self-cure” gave variable results but the phenomenon is of very short duration. The protection against *O. columbianum* induced by winter feeding of weaners with green oats was confirmed. *Limnaea brazieri*, suspected as the local vector of *Fasciola hepatica*, is very susceptible to desiccation but is thought to survive prolonged drought in the holes made by “yabbies” (*Parachaerops* spp.)

R.T.L.

**596—Report of Director, Abattoir and Live Stock Market Department, City of Johannesburg.**

- a. KIRKPATRICK, A. C., 1947.—“Report for the period 1st July, 1945, to 30th June, 1946.” Year 1945-46, 15 pp.  
 b. MARTINAGLIA, G., 1947.—“Report for the period 1st July, 1946, to 30th June, 1947.” Year 1946-47, 21 pp.

(596a) During the year 1945-46, the number of animals slaughtered in the City of Johannesburg Abattoir totalled 874,528, comprising 247,162 cattle, 468,711 sheep and goats, and 158,655 pigs. Condemnations on account of helminth infestations were as follows: for cysticerciasis (measles), 1,027 cattle, 5 beef quarters, 3,038 ox offals, 1 ox head, 1 ox tongue, 6,690 pig carcasses and 7,848 pig offals; for *Cysticercus tenuicollis*, 3 mutton carcasses and 3 sheep offals; for echinococcosis, 36 ox plucks, 206 ox lungs, 64 ox livers, 16 sheep plucks, 6,908 sheep lungs, 11,162 sheep livers, 6 pig carcasses and 6 pig offals; for distomiasis, 4 ox lungs, 19,158 ox livers and 26,173 sheep livers; for *Oesophagostomum columbianum*, 40,851 sheep intestines; for onchocerciasis, 3 cattle and 3 ox offals.

E.M.S.

(596b) During the year 1946-47, the total number of animals slaughtered in the Johannesburg Abattoir was 880,375, comprising 326,853 cattle, 457,827 sheep and goats, and 95,695 pigs. Helminthiasis accounted for the following condemnations: cysticerciasis (measles), 1,348 cattle, 4 beef quarters, 6,103 bovine offals, 3,346 pig carcasses and 4,249 pig offals; *Cysticercus tenuicollis*, 1 mutton carcass, 1 sheep offal and 1 sheep liver; echinococcosis, 68 ox plucks, 165 ox lungs, 92 ox livers, 44 sheep plucks, 6,539 sheep lungs, 8,373 sheep livers, 2 pig carcasses and 2 pig offals; distomiasis, 19,645 bovine livers and 10,567 sheep livers; *Oesophagostomum radiatum*, 47 ox intestines; *O. columbianum*, 55,553 sheep intestines; onchocerciasis, 6 cattle and 6 ox offals. [An article by Martinaglia & Brandt entitled “Cysticercosis of the impala or rooibok (*Aepyceros melampus*) with reference to meat hygiene” is reprinted (pp. 12-14) from *J.S. Afr. vet. med. Ass.*, 1947, 18 (1), 20-27. For abstract see *Helm. Abs.*, 16, No. 116a.]

E.M.S.



**597—Report. Dove Marine Laboratory, Cullercoats, Northumberland.**

- a. CROFTON, H. D., 1947.—“The parasites of some littoral fishes of Northumberland.” Ser. 3, Years 1940-46, No. 9, pp. 59-64.

(597a) The helminths collected from nine species of littoral fish caught off Cullercoats, Northumberland, comprised nine species of trematodes, two of cestodes, two of nematodes and one of Acanthocephala. In estimates of incidence, the size and age of the individual hosts were found to be important. The percentages of hosts infected are tabulated. The low incidence previously reported by Lebour (1908) is not confirmed. R.T.L.

**598—Report of the New York State Veterinary College.**

- a. WHITLOCK, J. H., 1947.—“Ten per cent cunic for controlling gastro-intestinal helminthiasis in sheep.” Year 1945-46, No. 14a, pp. 89-91.  
b. WHITLOCK, J. H. & BAKER, D. W., 1947.—“The diagnosis of diseases of lambs.” Year 1945-46, No. 14a, pp. 92-99.

(598a) [This paper has already appeared in *Cornell Vet.*, 1946, 36 (1), 47-50. For abstract see *Helm. Abs.*, 15, No. 99a.]

(598b) [This paper has already appeared in *Cornell Vet.*, 1946, 36 (3), 241-250. For abstract see *Helm. Abs.*, 15, No. 99b.]

**599—Report. University of Florida Agricultural Experiment Station.**

- a. ANON., 1947.—“Animal Industry.” Year 1946-47, pp. 53-65.  
b. ANON., 1947.—“Entomology.” Year 1946-47, pp. 66-71.  
c. NETTLES, V. F., 1947.—“Effect of soil fumigants on yield and quality of vegetables.” Year 1946-47, p. 87.  
d. ANON., 1947.—“Strawberry Investigations Laboratory. [Report.]” Year 1946-47, pp. 112-116.  
e. FOSTER, A. A. & RUSSELL, J. C., 1947.—“Root-knot nematode.” Year 1946-47, p. 143.  
f. WILSON, J. W., 1947.—“Nematode control.” Year 1946-47, p. 204.

(599a) Emmel reported [p. 57] a reduction of 80% in the incidence of roundworm infection in poultry confined to sulphurized yards, as compared with a control group in non-sulphurized yards. The experiment extended over a period of four years. Swanson [p. 60] has found that the molluscan intermediary of *Fasciola hepatica* in Florida is *Pseudosuccinea columella*. Naturally infected snails liberated an average of 44.6 cercariae per snail; experimentally infected snails liberated 7-55 cercariae in a period of 48-53 days after infection. Liver-fluke disease was readily controlled by draining surface water and controlling artesian wells and other breeding areas for intermediaries. Snails died within 10 days on completely drained areas. Copper sulphate at the rate of 24 lb. per cu. ft. flow of water per second killed all the snails within the distance it flowed in 24 hours, i.e. one mile, and was similarly lethal when applied to ponds, sloughs or wet areas at the rate of 20 lb. per acre-foot. One part of copper sulphate was mixed with six parts of dry earth for ease of distribution. As the eggs were not affected, treatment was repeated in 21 days to kill newly hatched snails. R.T.L.

(599b) Reporting on the breeding of vegetables resistant to root-knot, Bratley [p. 67] states that infestations were higher on the more prolific strains of tomatoes. No resistance was found in tested plants of pimiento pepper. The effects of different mulch materials on root-knot and on yield of okra and tomatoes are being tested [p. 68]. Tissot [p. 71] found that pure ethylene dibromide in capsule form was no better than standard nematicides against root-knot. B.G.P.

(599c) Nettles reports that neither yield of squash nor nematode infestation reflected any residual effects from uramon, larvacide or Dowfume W-10 applied seven months earlier. A comparison of these three nematicides and D-D mixture gave no differences in yield of peas or strawberries, but (compared with controls) they gave rise to a reduced stand of cucumbers with no significant increase in yield but some reduction in eelworm infestation. No yield increase resulted from their application to watermelon hills. B.G.P.

(599d) Strawberry plants were found whose leaves showed progressive dying from the leaf margins inwards, and whose feeder roots were much reduced or absent. When soil from the areas where such plants occurred was put into pots and sown with oats and cucumber seeds, the roots of the resulting seedlings were soon invaded by nematodes, most of which were identified as *Pratylenchus pratensis*. D-D was injected at a depth of 6-10 inches and 3-5 c.c. per injection about 4½-6 inches away from growing plants in January 1947. The plants were not killed but started to grow and put out new roots, whereas untreated plants remained stunted. A strong word of caution is given that when the same treatment was applied in the last week of May, 95% of the plants were killed. In tests of D-D for control of root-knot, redistilled D-D applied at the rate of 1,000 lb. per acre in July did not affect the flavour of tomatoes or beans planted six days and a few weeks respectively after treatment. The same plot was treated in the following January with crude D-D at 200 lb. per acre, followed by sprinkling the soil with 1 gal. per 25 sq. ft. of 7% formaldehyde solution. Beans and tomatoes planted in February produced crops which could not be eaten because of the flavour of D-D, which persisted until June. T.G.

(599e) Foster & Russell report satisfactory commercial control of root-knot in lettuce using five nematocides, of which methyl bromide and chloropicrin were economically prohibitive, but 10% ethylene dibromide or D-D mixture, each at 34 gal. per acre, were economically feasible. In further tests in a soil of 11% moisture at 75°F. the last two were phytotoxic to various plants and seeds planted four days after injection, but not 10 days after. Ethylene chlorobromide caused no injury one day after injection but gave unsatisfactory eelworm control, as did calcium cyanamide at 500 lb. per acre, which was highly phytotoxic. The best treatment used was ethylene dibromide at, per acre, 3 gal. diluted to 15 gal. with naphtha. B.G.P.

(599f) On Everglades peat soils, Wilson found that ethylene dibromide at 40 gal. per acre gave satisfactory control of root-knot and greatly increased yields of beans. Even when planted 42 days after injection beans showed a reduced stand from using this or D-D mixture, whereas Golden celery was safely planted after 16 days. In a glasshouse with high soil moisture, Golden celery withstood a high eelworm population. B.G.P.

#### 600—Repositório de Trabalhos do Laboratório Central de Patologia Veterinária. Lisbon.

- a. LINO DE SOUSA, J. M. P., 1947.—“Tetratiridiose em galináceo.” 6 (2), 393-394. [English, French & German summaries p. 394.]
- b. BORGES FERREIRA, L. D. B., 1947.—“*Fasciola hepatica* em asinino.” 6 (2), 395-396. [English, French & German summaries p. 396.]

(600a) *Tetrathyridium variabile*, the larva of *Mesocestoides litteratus* [= *M. lineata*], occurred encysted in a hen. This is the first record of its occurrence in Portugal. R.T.L.

(600b) *Fasciola hepatica* was found in *Equus asinus* in the Zoological Gardens at Lisbon. Ten similar cases are mentioned. R.T.L.

#### 601—Resenha Clínico-Científica. São Paulo.

- \*a. ANON., 1947.—“Considerações sobre as helmintíases.” 16 (5), 163-167.

#### 602—Review of Gastroenterology.

- \*a. SHOOKHOFF, H. B., 1947.—“Intestinal parasitosis in the civilian population.” 14 (8), 547-553.

#### 603—Revista Argentina de Urología.

- \*a. CASAL, J. & ROCCHI, A., 1947.—“Quiste hidático prevesical calcificado.” 16, 79-82.



**604—Revista de la Asociación Médica Argentina.**

- a. JORGE, J. M. & RE, P. M., 1947.—“Hidatidosis. Concepto general sobre su tratamiento biológico.” 61 (619/620), 893-898.

**605—Revista Brasileira de Medicina.**

- a. TAVARES DA SILVA, L. C., 1947.—“Tratamento da esquistosomíase de Manson pelo Stiboplex.” 4 (7), 513-517. [English summary pp. 516-517.]

(605a) “Stiboplex III”, a commercial organic compound said to contain about 8% of metallic antimony and 30% of iodine, has a lethal effect *in vitro* on the adults of *Schistosoma mansoni* in five minutes in a dilution of 0.0109%. Intramuscular injections in guinea-pigs of 3 mgm. of a 1% aqueous solution for three days killed the parasites. So far only four cases of infection in man have been treated.

R.T.L.

**606—Revista Chilena de Pediatría.**

- a. BARROSO, E., 1947.—“Oxiurasis en Puerto Natales (Prov. de Magallanes).” 18 (5), 353-355. [English summary p. 355.]

(606a) A single swab examination made on 205 schoolboys from Puerto Natales gave an *Enterobius* incidence of 45%. The probability of a much higher incidence on repeated examination is discussed.

E.M.S.

**607—Revista Clínica Española.**

- a. ALMANSA DE CARA, S., 1947.—“Indicaciones y técnica de la punción transparietal como medio diagnóstico decisivo en determinados casos de quiste hidatídico pulmonar dudoso.” 25 (4), 263-270. [English, French & German summaries p. 270.]
- b. PURSELL MÉNGUEZ, A. & LORENZO FERNÁNDEZ, T., 1947.—“Manifestaciones torácicas de los quistes hidatídicos de hígado.” 26 (1), 14-20. [English, French & German summaries p. 20.]
- c. VILLASANTE, J. G., ROF CARBALLO, J. & MERCHANT IGLESIAS, A., 1947.—“Sobre la existencia de un foco de anquilostomiasis en la provincia de Madrid.” 26 (6), 417-418.
- d. NAVLET RODRÍGUEZ, J., 1947.—“La hidatidosis pulmonar como problema quirúrgico.” 26 (6), 418-423.

**608—Revista Clínica de São Paulo.**

- \*a. PESSÔA, S. B., 1947.—“Associação do timol e óleo de quenopódio no tratamento das helmintoses, principalmente da ancilostomose e ascaridiose.” 22, 37-40.

**609—Revista Cubana de Laboratorio Clínico.**

- a. KOURÍ, P., 1947.—“Localización de las vitellarias y testículos, y génesis de la cáscara y de la yema del huevo en *Diphyllbothrium* (Cestoda Pseudophyllidea). Demostrada por cortes gruesos, y por métodos histológicos, respectivamente. Reporte preliminar.” 1 (3), 77-84.

(609a) Kourí shows, by means of original drawings and descriptions, that the vitellaria in *Diphyllbothrium latum* and *D. erinacei* occupy both dorsal and ventral sub-cuticular areas of the lateral fields, while the testes occupy the median plane, the accepted distribution of the vitellaria ventrally and the testes dorsally being erroneous. He further shows that the vitellaria and not Mehlis' gland secrete the substance which in the ootype forms the egg-shell in these pseudophyllidean cestodes, just as Kourí & Nauss have previously shown to be the case in various trematodes [for abstract see Helm. Abs., 7, No. 398j]. He suggests again that Mehlis' gland should no longer be called the “shell gland”.

E.M.S.

**610—Revista Ecuatoriana de Higiene y Medicina Tropical.**

- a. GÓMEZ LINCE, L. F., 1947.—“Hallazgo de un raro huevo operculado en las materias fecales de humanos.” 4 (1/2), 3.

## 611—Revista Española de Cirugía, Traumatología y Ortopedia.

- a. MONTAGUT CUADRAD, R., 1947.—"Absceso gangrenoso lumbar." 6 (33), 150-153.

## 612—Revista Española de Tuberculosis.

- a. GONZÁLEZ DE VEGA, N., 1947.—"Aportación a la clínica de la ascariidiosis pulmonar humana." 16 (144), 197-216. [English summary pp. 214-215.]  
 b. CABAL, M., 1947.—"Pleuritis serofibrinosa por áscaris." 16 (152), 837-844.

## 613—Revista de Higiene e Saúde Pública. Rio de Janeiro.

- a. RODRIGUES DE ALBUQUERQUE, A. F. & CAVALCANTE MACHADO, A., 1947.—"Contribuição ao conhecimento da nosologia de Alagoas." 5 (1), 21-34.

(613a) In the State of Alagoas, Brazil, schistosomiasis *mansoni* varies considerably in incidence. A table setting out the results of faecal examination of 26,174 individuals between 1942 and 1946 showed that at Maceió adult infections occurred in 893 out of 15,906, in the district of Rio Largo in 738 out of 2,341, at S. Miguel dos Campos in 438 out of 1,816, at S. Luiz do Quitunde in 219 out of 572, at Penedo in 2 out of 1,251, while at Pão de Açúcar none of 511 were infected. Of schoolchildren, 59 out of 2,646 at Maceió and 147 out of 587 at Assembléia were positive. The molluscan intermediaries were *Tropicorbis centimetralis* and *Australorbis olivaceus*.  
 R.T.L.

## 614—Revista del Hospital del Niño. Lima.

- a. MOREY SOTOMAYOR, G., 1947.—"Hidatidosis de la infancia." 9 (31), 127-147.

## 615—Revista Kuba de Medicina Tropical y Parasitología.

- a. REGALADO, O., 1947.—"Ascariidiosis hepatobiliar." 3 (2), 48-50.  
 b. READ BARRERAS, H. & THOMEN, L. F., 1947.—"Verminosis poco frecuentes en Santo Domingo." 3 (2), 50-51.  
 c. SACCOMANNO, T. G., 1947.—"Nuevo tratamiento de la teniasis." 3 (2), 52.  
 d. BUSTAMANTE, J. A., 1947.—"Acuerdo del Primer Congreso Médico Social Pan-Americano, sobre el *Inermicapsifer cubensis*." 3 (2), 54-55. [In Spanish & English.]  
 †e. KOURÍ, P., AGUILAR, F. J. & CALVO FONSECA, R., 1947.—"Índices endémicos de infestación trematódica." 3 (3), 59.  
 †f. MARTÍNEZ FORTÚN, O. & CALVO FONSECA, R., 1947.—"Mortalidad por parasitismo intestinal en Cuba en los últimos 40 años." 3 (3), 59.  
 †g. ACKERT, J. E., 1947.—"Soybean oil meal supplement effective in maintaining host resistance to ascarids." 3 (3), 61. [Also in Spanish p. 61.]

(615b) [This paper is reprinted from *Bol. Asoc. med. P. Rico*, 1946, 38 (4), 129-131. For abstract see *Helm. Abs.*, 15, No. 343a.]

(615c) [This article is reprinted from *Prensa méd. argent.*, 1946, 33 (32), 1657-1658 (for abstract see *Helm. Abs.*, 15, No. 505c), except that the drug used is now called Atebrina (dihydrochloride of 2-methoxy-6-chloro-9- $\alpha$ -diethylamino-8-pentylaminoacridine).]

(615d) Bustamante, writing as general secretary of the First Pan-American Medical Social Congress, addressed to the Committee on Nomenclature of the American Society of Parasitologists a resolution of the Congress concerning the correct author of the combination *Inermicapsifer cubensis*. It was pointed out that this name was first used by Kourí on p. 426 of the first edition of his text-book entitled "Lecciones de Parasitología y Medicina Tropical" published on 15th June 1940. The Committee were asked to reconsider their opinion that the correct citation is *I. cubensis* (Kourí, 1939) Stunkard, 1941, published in *J. Parasit.*, 1946, 32 (5), 519-520 [for abstract see *Helm. Abs.*, 15, No. 112s].  
 E.M.S.

(615g) [This paper was published in full in *Rev. Kuba Med. trop. Parasit.*, 1947, 3 (4), 92-94. For abstract see below, No. 615r.]

† Abstract of paper presented at 1er Congreso Médico Social Pan-Americano (Havana), December 3-8, 1946.



- th. VAN CLEAVE, H. J., 1947.—"Major taxonomic groupings in the Phylum Acanthocephala." 3 (3), 61-62.
- ti. KOURI, P. & SOTOLONGO, F., 1947.—"Estado actual de la infestación por *Inermicapsifer cubensis*." 3 (3), 62-63.
- tj. MALDONADO, J. F. & ACOSTA-MATIENZO, J., 1947.—"Larval cycle of *Schistosoma mansoni* in the intermediate host, *Australorbis glabratus*." 3 (3), 63. [Also in Spanish p. 63.]
- tk. STUNKARD, H. W., 1947.—"Tests to determine whether North American snails can transmit the human schistosomes." 3 (3), 63. [Also in Spanish pp. 63-64.]
- tl. CRAM, E. B., 1947.—"The present status and possible spread of *Schistosoma mansoni* in the Western Hemisphere." 3 (3), 64. [Also in Spanish p. 64.]
- tm. LOUGHLIN, E. H. & STOLL, N. R., 1947.—"Fomite-borne ancylostomiasis." 3 (3), 64-65. [Also in Spanish p. 65.]
- n. MALDONADO, J. F. & ACOSTA-MATIENZO, J., 1947.—"Larval cycle of *Schistosoma mansoni* in its snail intermediate host, *Australorbis glabratus*." 3 (3), 69-72.
- o. BOZICEVICH, J., HOYEM, H. M. & WALSTON, V. M., 1947.—"A method of conducting the 50 percent hemolysis end point complement-fixation test for parasitic diseases." 3 (3), 73-75.
- p. CRAM, E. B., 1947.—"The present status and possible spread of *Schistosoma mansoni* in the Western Hemisphere." 3 (4), 82-84.
- q. FERGUSON, M. S., 1947.—"Schistosome infection by cercariae distant from snail foci." 3 (4), 86-87.

(615h) Van Cleave considers that the taxonomic changes consequent upon the elevation of the Acanthocephala to the rank of phylum ought not to consist merely in the elevation of the original orders into classes, as this makes an unnaturally large distinction between the Archiacanthocephala and the Palaeacanthocephala. In order to set these groups in sharp contrast with the Eoacanthocephala, he creates for them a new class Metacanthocephala. E.M.S.

(615j) [This paper is published in full in *Rev. Kuba Med. trop. Parasit.*, 1947, 3 (3), 69-72 (see below, No. 615n).]

(615l) [This paper is published in full in *Rev. Kuba Med. trop. Parasit.*, 1947, 3 (4), 82-84 (for abstract see below, No. 615p).]

(615m) [This paper was published in full in *Rev. Kuba Med. trop. Parasit.*, 1947, 3 (5), 107-110, and in *Amer. J. Hyg.*, 1947, 45 (2), 191-203. For abstract see *Helm. Abs.*, 16, No. 4d.]

(615n) [This paper also appeared in *Puerto Rico J. publ. Hlth*, 1947, 22 (4), 331-373. For abstract see *Helm. Abs.*, 16, No. 139d.]

(615o) [This paper is reprinted from *Publ. Hlth Rep., Wash.*, 1946, 61 (15), 529-534. For abstract see *Helm. Abs.*, 15, No. 51a.]

(615p) Cram summarized the geographical distribution of endemic schistosomiasis mansoni and its known intermediaries, and the records of natural and experimental infection in hosts other than man. She concluded that the problem required even more attention than it was receiving. E.M.S.

(615q) Ferguson recapitulates the instances which have been reported in which *Schistosoma japonicum* infection has been contracted in water not containing the snail intermediary. He reports the occurrence of 75 cases among the personnel of a U.S. Army hospital on Leyte, after bathing at a point where a slow-moving river made a wide turn. The source of infection was traced to a large marsh draining into the river more than a mile upstream. Ferguson considers that the same epidemiological factor could operate for *S. haematobium* and *S. mansoni*. E.M.S.

† Abstract of paper presented at Ier Congreso Médico Social Pan-Americano (Havana), December 3-8, 1946.

## 615 Revista Kuba de Medicina Tropical y Parasitologia (cont.)

- r. ACKERT, J. E., 1947.—"Soybean oil meal supplement effective in maintaining host resistance to ascarids." 3 (4), 92-94.
- s. HEINERT, J. F., 1947.—"Paragonimiasis pulmonar o distomatosis pulmonar en el Ecuador." 3 (5), 101-106. [English summary p. 106.]
- t. HEINERT, J. F., 1947.—"Anguiluliasis. (Observaciones poco comunes)." 3 (5), 106-107.
- u. LOUGHLIN, E. H. & STOLL, N. R., 1947.—"Fomite-borne ancylostomiasis." 3 (5), 107-110.
- v. CORBERA Y CARIDAD, J., 1947.—"Quiste linfático filariósico del cordón inguinal." 3 (5), 111-113.
- w. WHARTON, D. R. A., 1947.—"An improved skin test for filariasis in man applied to natives of British Guiana." 3 (7), 154-155.
- x. OTTOLINA, C., 1947.—"El diagnóstico de la infección bilharziana con la biopsia rectoscópica por transparencia." 3 (7), 155-157.
- y. BASNUEVO, J. G., 1947.—"Teniasis y Estaño." 3 (7), 162-164.
- z. STOLL, N. R., CHENOWETH, Jr., B. M. & PECK, Jr., J. L., 1947.—"*Enterobius vermicularis*. Influencia de esta parasitosis entre los habitantes de Guam (Islas Marianas)." 3 (9), 189-192.

(615r) Ackert describes experiments which showed that half-matured chickens receiving 14% soya bean meal in their ration were as resistant against experimental *Ascaridia galli* infection as those receiving the same amount of meat scraps, or of meat scraps and powdered milk.

E.M.S.

(615s) Heinert gives notes on some of the 26 cases of pulmonary *Paragonimus* infection which have been reported since 1921 in Ecuador, almost all from the coastal provinces. The aetiology and diagnosis are outlined, and it is stated that intramuscular or intravenous injection of 40-80 mg. of emetine hydrochloride is effective in mild cases.

E.M.S.

(615t) Heinert describes three cases of *Strongyloides stercoralis* infection in Ecuador, all of which showed larvae in the sputum. It is suggested that the Ecuador strain has an exaggerated broncho-pulmonary tropism.

E.M.S.

(615u) [This paper also appeared in *Amer. J. Hyg.*, 1947, 45 (2), 191-203. For abstract see *Helm. Abs.*, 16, No. 4d.]

(615w) Wharton tested 215 persons in British Guiana by the injection of 0.02 ml. of *Dirofilaria immitis* antigen at a dilution of 1:100,000. A control injection of dog serum was made simultaneously. The great majority of the people tested lived in a mosquito-infested environment, and it is unusual in that area to find a grown person without some manifestations of filariasis or a history of having had symptoms. Positive reactions were obtained in 89.8% of cases, 5.1% were negative, and 5.1% gave "indeterminate" reactions in which the response to the filarial antigen was less than 3 mm. greater than that to dog serum. Only freshly prepared antigen gives a strong reaction.

E.M.S.

(615x) [This article appeared in English in *Amer. J. trop. Med.*, 1947, 27 (5), 603-606. For abstract see *Helm. Abs.*, 16, No. 176e.]

(615y) Basnuevo reports the cure of a refractory case of taeniasis saginata following the administration over a two-day period of 20 tablets of a preparation "Estaño" containing powdered metallic tin and various tin compounds, whose composition is given. [The article is reprinted from *Avance med.*, Habana, July 1943.]

E.M.S.

(615z) [This article is reprinted from *Puerto Rico J. publ. Hlth*, 1947, 22 (3), 244-253. For abstract see *Helm. Abs.*, 16, No. 139a.]



- ba. PRATT, C. K. & OLIVER GONZÁLEZ, J., 1947.—“Reacciones intradérmicas con antígeno de cercarias esquistosómicas (Manson).” 3 (9), 192-193.
- bb. PONCE PINEDO, A. M., 1947.—“Esquistosomiasis de Manson en Santo Domingo.” 3 (9), 193-196.
- bc. HERNÁNDEZ MORALES, F., MALDONADO, J. F. & PRATT, C. K., 1947.—“Diagnóstico de la esquistosomiasis de Manson por medio de la biopsia del recto.” 3 (9), 196-200.
- bd. ANON., 1947.—“Conteo de huevos de helmintos (según Basnuevo).” 3 (9), 207.
- be. OLIVIER, N. J., 1947.—“Schistosomiasis: a review of some of the recent literature.” 3 (10), 226-229.

(615ba) [This article is reprinted from *Puerto Rico J. publ. Hlth*, 1947, 22 (3), 257-259. For abstract see *Helm. Abs.*, 16, No. 139b.]

(615bb) [This article is reprinted from *Puerto Rico J. publ. Hlth*, 1947, 22 (3), 316-324. For abstract see *Helm. Abs.*, 16, No. 139c.]

(615bc) [This article is reprinted from *Bol. Asoc. méd. P. Rico*, 1946, 38 (7), 253-263, and has also appeared in English in *Amer. J. trop. Med.*, 1946, 26 (6), 811-821. For abstract see *Helm. Abs.*, 15, No. 159m.]

#### 616—Revista Médica da Bahia.

- \*a. MARTINS, F., 1947.—“Do emprego da emetina no tratamento da schistosomose, na criança.” 15, 1-16.
- \*b. FIGUEIREDO, J. DE, 1947.—“A doença de Manson-Pirajá da Silva na Bahia; sua incidencia na ilha de Itaparica.” 15, 136-149.
- \*c. MARTINS, F., 1947.—“A via retal para o tratamento da esquistosomose.” 15, 201-224.

#### 617—Revista Médica de Córdoba.

- a. RODRÍGUEZ, C., 1947.—“Parasitosis intestinales en Córdoba. Estadística sobre 3160 casos.” 35 (5), 278-280.
- b. ZUNINO, R. D. & BOHER, A., 1947.—“Tratamiento biológico del quiste hidatídico.” 35 (11), 602-610.

(617a) Of 3,160 persons examined in Córdoba, Argentina, 2,181 carried intestinal parasites. Among the infected persons, helminths were observed as follows: *Fasciola hepatica* in 10 (0.46%), *Taenia saginata* in 50 (2.29%), *Hymenolepis nana* in 135 (6.18%), *Ascaris* in 34 (1.55%), *Enterobius* in 60 (2.75%), *Strongyloides* in 11 (0.5%), *Trichuris* in 11 (0.5%).  
E.M.S.

#### 618—Revista Médica del Hospital Italiano de La Plata.

- \*a. MAINETTI, J. M. & GIOVAN BATTISTA, N. DI, 1947.—“Quistes hidatídicos calcificados del hígado; a propósito de 19 casos.” 4 (12), 23-84.
- b. MAINETTI, J. M., ORLANDI, H. & MAMMONI, O., 1947.—“Sombra redondeada del ángulo cardio-frénico. Toracotomía exploradora.—Quiste hidático de la lengüeta anterior del lóbulo inferior derecho.” 4 (13), 37-43.

#### 619—Revista Médica de Rosario.

- \*a. BASSAN, D. & CACCIA, J. P., 1947.—“Hidatidosis pelviana de la mujer.” 37, 512-520.
- \*b. AUDED CALLAU, J., 1947.—“Un caso de distomatosis hepato-biliar.” 37, 971-975.

#### 620—Revista de Medicina e Cirurgia de São Paulo.

- a. OLIVEIRA MATTOS, J. DE, 1947.—“A esplenectomia na esquistosomose mansônica.” 7 (3), 131-140.

#### 621—Revista de Medicina Experimental. Lima.

- \*a. AYULO ROBLES, V. M. & DAMMERT, T. O., 1947.—“Survey del parasitismo intestinal de las ratas grises (*Mus norvegicus*) en en ciudad de Lima.” 6 (1/4), 76-93.

**622—Revista de Medicina Veterinaria. Buenos Aires.**

- a. AULT, C. N., 1947.—“Nematodes parásitos de los bovinos y ovino en la Argentina (tercera nota).” 29, 818-822.

(622a) Ault found a few specimens of *Haemonchus similis* in bovine material received from Paraguay. A relatively high proportion of this species was found also in cattle from the north of Entre Rios and from Corrientes, both in Argentina. The specimens are described. E.M.S.

**623—Revista de la Policlínica Caracas.**

- \*a. VALLE, A. DEL, 1947.—“Papel del Ascaris en las complicaciones quirúrgicas.” 16, 148-186.  
b. RÍSQUEZ-IRIBARREN, R. & ORTIZ C., I., 1947.—“Consideraciones con motivo del segundo caso de *Hymenolepis diminuta* en Venezuela.” 16 (95/96), 201-214. [English & French summaries p. 212.]

**624—Revista Sudamericana de Morfología. Buenos Aires.**

- a. POTENZA, L., 1947.—“Sobre las localizaciones aberrantes de los huevos del *Schistosoma mansoni* en los órganos genitales y urinarios. Presentación de tres nuevos casos (escroto, riñón).” 5 (1), 6-15. [English summary p. 14.]  
b. SCHWARZ, J. & DENEGRI, A., 1947.—“Cisticercosis cerebral.” 5 (1), 69-75. [English summary p. 75.]

**625—Revue Agricole. Guadeloupe.**

- a. ANAIS, D., 1947.—“La maladie vermiculaire [des bananiers].” 4 (6), 153-158.

(625a) Anais discusses a nematode infestation of banana roots [name of parasite unspecified], describes the symptoms shown in foliage and roots, and shows that there is a correlation between the amount of root injury and susceptibility to *Cercospora* leaf spot. He indicates the importance of ground cover in banana cultivation and, as a control measure, recommends the application of calcium cyanamide at the rate of 150-250 gm. around each tree at the beginning and end of the rainy season. He claims that by checking the nematode infestation by this means, the *Cercospora* disease is also checked. T.G.

**626—Revue d'Élevage et de Médecine Vétérinaire des Pays Tropicaux.**

- a. GUILHON, J., 1947.—“Chromothérapie anthelminthique.” 1 (3), 217-230.  
b. TOUMANOFF, C., 1947.—“Sur un acanthocéphale nouveau du genre *Oncicola* (*Oncicola malayana* n.sp.) rencontré chez une panthère noire (*Felis melas* Desm.) provenant de Malaisie.” 1 (3), 231-236.

(626a) Guilhon reviews recent literature on the anthelmintic efficacy of certain synthetic dyes, viz., the triphenylmethane derivatives gentian violet, crystal violet, brilliant green, malachite green, basic fuchsin, and the thiazine derivatives dibenzoparathiazine (=phenothiazine), methylene blue, Lauth violet and thionol. R.T.L.

(626b) *Oncicola malayana* n.sp. from *Felis melas* is differentiated from *O. onicola* by the proboscis hooks which are shorter, by the greater length of the asymmetrical appendage of the hooks of the fourth row, and by the larger size of the adult male worms. R.T.L.

**627—Revue Suisse de Zoologie.**

- a. DUBOIS, G., 1947.—“L'épervier commun, hôte de *Neodiplostomum spathoides* Dub.” 54 (2), 280-282.

(627a) In a sparrowhawk, *Accipiter nisus*, found dead at Neuchâtel there were three specimens of *Neodiplostomum* (*Neodiplostomum*) *spathoides*. Dubois gives details of the measurements and has figured and described the main morphological characters, as this species is easily mistaken for *N. (Conodiplostomum) spathula* which is more common in this host. The latter is distinguishable by the thickness of the posterior portion and the small size of the copulatory bursa, of which the constricted pore is subterminal. R.T.L.



## 628—Revue de la Tuberculose.

- a. LOUBEYRE, M. J., FARKAS, E. & MORÈRE, M., 1947.—“Érythème noueux au cours du développement d'un kyste hydatique du poumon, chez une malade atteinte de tuberculose pulmonaire tertiaire.” Year 1946, 5e série, 10 (9/10), 645-646.

## 629—Rhode Island Medical Journal.

- a. CAMPBELL, W. E., 1947.—“Psychoses with trichinosis. A review of the literature and the report of a case.” 30 (12), 870-871.

## 630—Riforma Medica.

- a. MARTINI, D., 1947.—“Sulle cisti da echinococco della parotide.” 61 (21/22), 265-266.

## 631—Rivista di Biologia Coloniale. Rome.

- a. CACCIAPUOTI, R., 1947.—“Su di una nuova distomiasi umana in Etiopia.” 8, III-III.

(631a) *Pseudamphistomum aethiopicum* named by Professor Pierantoni in 1942 [*Acta pontif. Acad. Sci.*, 6 (6), 35-40] from a native of Abyssinia at Beghemeder is described again as a new species. It occurred in numbers in small cyst-like nodules about the size of a pea in the small intestine. It is distinguished from *P. truncatum* and *P. danubiense* by the absence of cuticular spines and the large size of the testes. R.T.L.

## 632—Rivista di Neurologia. Bologna.

- a. PACIFICO, A., 1947.—“Derivazione istiotipica dei mono e polinucleati eosinofili del liquor nella cisticercosi cerebrale.” 17 (5), 398-408.

## 633—Salubridad y Asistencia, Mexico.

- \*a. OSORIO, M. T., MÁRQUEZ ESCOBEDO, M. & MAZZOTTI, L., 1947.—“Investigación de helmintiasis en 9,127 habitantes de la ciudad de México.” 7, 409-413.

## 634—School Science Review.

- a. WILLIAMS, R. L., 1947.—“An improved method for preparing whole mounts of *Taenia proglottides*.” 28 (106), 354-356.

(634a) After fixing and washing repeatedly in distilled water, *Taenia* segments are stained in Mayer's haemalum for 72 hours, washed in distilled water and then in tap-water to restore blue colour, carefully decolourized in “Parazone” bleach (20 drops in 20 c.c. of distilled water), washed in acid alcohol, then in tap-water, dehydrated, cleared in beechwood creosote, and mounted. The method is equally applicable to *Fasciola hepatica*. R.T.L.

## 635—Schweizerische Medizinische Wochenschrift.

- a. JENTZER, A., 1947.—“Kystes à échinocoques uniloculaires de la rate.” 77 (1/2), 95-97.  
b. BERGER, A., 1947.—“Kasuistische Mitteilungen.” 77 (20/21), 555-557.

(635b) Berger describes a case of chronic foreign-body reaction in the mesenteric lymph nodes with focal eosinophilia and severe sclerosing perilymphadenitis. The cause appeared to be *Ascaris* eggs which were found in lymph node sections. E.M.S.

## 636—Schweizerische Zeitschrift für Pathologie und Bakteriologie.

- a. FUST, B. & GURTNER, H., 1947.—“Allergene aus *Ascaris lumbricoides*.” 10 (4), 457-463.  
b. KENT, H. N. & MACHEBOEUF, M., 1947.—“Recherches sur les protéines des cestodes. Fraction extraite par l'eau de *Moniezia* congelé délipidé.” 10 (4), 464-469.

(636a) Fust & Gurtner examined whole extract of *Ascaris* and protein, carbohydrate and lipid fractions for allergenic action. Only the whole extract and the protein fraction acted as precipitinogens. The carbohydrate and lipid fractions had the character of partial antigens, or semi-haptens. The whole extract contained precipitinogens additional to those in the protein fraction. E.M.S.

(636b) *Moniezia expansa* were frozen to  $-18^{\circ}\text{C}.$ , powdered, and the lipoids removed by alcohol and ether. Dialysis of the water-soluble extract of this material gave a precipitate which was soluble only with difficulty in water, and contained only 8.6% nitrogen with neither phosphorus nor reducing sugar. It was found that the precipitate was a protein but was bound to an unknown substance which is not a glucide and contains neither nitrogen, phosphorus nor sulphur. The supernatant was a mixture of Baerine (rich in sugar and poor in protein nitrogen) and Moniezine (poor in sugar and rich in protein nitrogen). These two are readily separable by electrophoresis. E.M.S.

### 637—Science. Shanghai.

a. HSÜ, S. L., 1947.—[Sheep parasites in China.] 29 (12), 366–368. [In Chinese & English.]

(637a) In the western part of China the sheep, which number perhaps 30 million, suffer heavy losses from malnutrition, weather conditions and parasitism. The 26 species of helminths so far found are listed. In general, liver-fluke is the most serious of these infections: a mortality rate of 60% is reported at Songang. In the Tibetan breed of sheep in the Lablong range lungworm is also serious. *Haemonchus contortus* comes next in importance, and hookworm is a constant menace. R.T.L.

### 638—Semaine des Hôpitaux de Paris.

a. GALLIARD, H. & BRUMPT, L. C., 1947.—“Ulcus duodénal ou strongyloïdose méconnue.” 23 (21), 1393–1396.

(638a) Galliard & Brumpt describe two cases of *Strongyloides stercoralis* infection simulating duodenal ulcer, and discuss the symptomatology and differential diagnosis. Strongyloidiasis should be suspected when there is a high eosinophilic index or when urticaria or pruritus is associated with the attacks. Certain diagnosis of course depends on the finding of the larvae in the faeces. E.M.S.

### 639—Semana Médica. Buenos Aires.

a. PINEDO, J. M., 1947.—“Tratamiento de la teniasis.” Año 54, 1 (2768), 143.

b. TOCE, A., MAUREL, J. L. & BULLAUDE, E., 1947.—“Diagnóstico de la oxiuriasis. Método del hisopo.” Año 54, 2 (2814), 975–979.

(639a) Pinedo reports the removal of *Taenia* from ten patients treated with eight tablets of Metoquina [see also Helm. Abs., 15, No. 505c]. In one case treatment had to be repeated, and in another the scolex was not recovered. E.M.S.

(639b) Examination of anal swabs from 200 children up to 14 years of age, patients in the Children's Hospital, Buenos Aires, revealed 78 (39%) *Enterobius* infections; 41 were found at the first examination, 37 at the second. The incidence was highest in 6-year-old children, 68.42% of whom were positive. E.M.S.

### 640—Sinensia.

a. KUNG, C. C., 1947.—“On the structure of the oesophageal glands of *Rhabdias bicornis* (Rhabdiasoidea, Nematoda).” Year 1946, 17 (1/6), 33–35.

(640a) Kung finds that the oesophageal glands of *Rhabdias bicornis* do not differ in essentials from those of *Rhabdias* sp. studied by Chitwood. The Rhabdiasoidea seem, in his view, rather closely related to the Ascaroidea but show simplification of the duct-like portion of the glands which are unbranched and equally developed. R.T.L.

### 641—Sirürjl (Bulletin de la Société Turque de Chirurgie).

\*a. CANKAT, M. I., 1947.—[Hydatid cyst. A case.] 1 (3), 152–153. [In Turkish.]



**642—Southern Surgeon. Atlanta, Ga.**

- a. McEWAN, D., ECONOMON, J. G. & ZELLNER, R. E., 1947.—“ Mistaken surgical diagnoses in hookworm disease.” 13 (10), 760-766.

**643—Spreckels Sugar Beet Bulletin. San Francisco.**

- a. LANGE, W. H., 1947.—“ Sugar beet insects and nematodes and their control.” 11 (1), 1-8.

**644—Svensk Veterinärtidskrift.**

- a. NORIN, P. O., 1947.—“ Distomatos hos nötkreatur, en föga beaktad sjukdom.” 52 (4), 107-108.

(644a) Norin found that fascioliasis in cattle is rather common in Sweden, and that the economic loss is more important than generally thought. S.B.

**645—Thorax. London.**

- a. BARRETT, N. R., 1947.—“ The treatment of pulmonary hydatid disease.” 2 (1), 21-57.

**646—Tip Fakültesi Mecmuasi, Istanbul Üniversitesi. (Bulletin de la Faculté de Médecine d'Istanbul).**

- a. TANSEL, D., 1947.—“ İki alveoler ekinokok vak'asi.” [Alveolar echinococcosis; two cases.] 10 (4), 306-309.

**647—Transactions of the American Clinical and Climatological Association.**

- \*a. WINKENWERDER, W. L., 1947.—“ Some observation of epidemic of acute schistosomiasis which occurred in Philippine Islands.” Year 1946, 58, 153-170.

**648—Transactions of the American Ophthalmological Society.**

- a. CLARK, W. B., 1947.—“ Ocular onchocerciasis in Guatemala. An investigation of 1,215 natives infected with *Onchocerca volvulus*.” 45, 461-501.

(648a) In the village of Yepocapa (8,000 inhabitants), examination was made of 1,215 individuals known to have had onchocerciasis or from whom nodules had been removed. Skin biopsies were positive in 383 cases (31.5%). Of 1,607 individuals with nodules or a history of nodules, 203 had entirely normal eyes; on the other hand, 148 persons with no history of nodules had ocular onchocerciasis. The total number of persons with ocular lesions due to the disease was 534, or 44% of the persons examined. Only 23 persons were blind in both eyes. Superstitious objection to enucleation prevented the histopathological examination of all but one infected eye. Complete results of chemotherapeutic trials with foudadin and radio-active tartar emetic are to be published later. E.M.S.

**649—Transactions of the Illinois Academy of Science.**

- \*a. WANTLAND, W. W. & MARTIN, P., 1947.—“ An investigation of some possible sources of trichina infection in a central Illinois community.” 40, 215-217.

**650—Transactions of the Royal Society of South Australia.**

- a. JOHNSTON, T. H. & EDMONDS, S. J., 1947.—“ Australian Acanthocephala No. 5.” 71 (1), 13-19.  
b. JOHNSTON, T. H. & MAWSON, P. M., 1947.—“ Some nematodes from Australian lizards.” 71 (1), 22-27.  
c. JOHNSTON, T. H. & BECKWITH, A. C., 1947.—“ Larval trematodes from Australian fresh-water molluscs. Part XII.” 71 (2), 324-333.

(650a) Johnston & Edmonds describe *Pararhadinorhynchus mugilis* n.g., n.sp. from *Mugil cephalus*, and assign the new genus to the Rhadinorhynchidae; the parasite differs from most other genera of the family, particularly in the absence of body spines. Descriptions are also given of specimens of *Hypoechinorhynchus alaeopsis* taken from *Callionymus calauropomus*, and of *Rhadinorhynchus pristis* from *Thynnus maccoyi*. E.M.S.

(650b) Johnston & Mawson describe *Amphibiophilus egerniae* n.sp. from the intestine of *Egernia dahl*, *Ophidascaris varani* n.sp. from *Varanus varius*, *Thelandros trachysauri* n.sp. from *Trachysaurus rugosus*, and *Parathelandros oedurae* n.sp. from *Oedura robusta*. Notes are also given of host and locality records of *Physaloptera antarctica*, *P. confusa*, *Physaloptera* sp., *Pneumonema tiliquae*, *Pharyngodon tiliquae* and *P. australe*. A key is given to the four species of *Pharyngodon* now recorded from reptiles in Australia, all of which appear to be valid, although three of them have the same host, *Tiliqua scincoides*.

E.M.S.

(650c) Johnston & Beckwith describe two new furcocercariae, *Cercaria ancyli* n.sp., a strigide from *Amerianna pyramidata* and the fresh-water limpet *Ancyclus australicus*, and *C. lophosoma* n.sp., a lophocercaria from *Notopala hanleyi*, closely related to the cercaria of *Sanguinicola*. Attempts to elucidate the life-cycles were unsuccessful. E.M.S.

#### 651—Transactions and Studies of the College of Physicians of Philadelphia.

- a. McDANIEL, W. B., 1947.—“Undesirable guests and unwilling hosts. Parasites in ancient and modern Italian folkmedicine.” 15 (1), 26–35.

#### 652—Transactions of the Suffolk Naturalists' Society.

- a. GRANT, H. C., 1947.—“An unrecorded Suffolk worm.” 6 (2), 125–126.
- b. GRANT, H. C., 1947.—“Four worms new to Suffolk.” 6 (2), 126.
- c. ELLIS, E. A., 1947.—“Mollusca parasitised by worm.” 6 (2), 152.

(652a) One hundred specimens of *Ascaris* [*Toxocara*] *mystax* were vomited by a male cat. E.M.S.

(652b) The worms now recorded for the first time in these *Transactions* are *Opisthioglyphe ranae* in *Rana temporaria*, *Macrodera longicollis* in *Tropidonotus natrix*, *Brachycoelium salamandrae* in *Molge vulgaris*, and the common liver-fluke, *Fasciola hepatica*. E.M.S.

(652c) “Worms” in the fresh-water snail *Succinea putris*, which could be observed *in vivo* lengthening and contracting with a pulsatory action, proved on extraction to be sporocysts of *Leucochloridium paradoxum* [= *L. macrostomum*]. E.M.S.

#### 653—Transactions of the Wisconsin Academy of Sciences, Arts and Letters.

- a. FISCHTHAL, J. H., 1947.—“Parasites of northwest Wisconsin fishes. I. The 1944 survey.” Year 1945, 37, 157–220.
- b. FISCHTHAL, J. H., 1947.—“Parasites of Brule river fishes. Brule river survey: report No. 6.” Year 1945, 37, 275–278.
- c. MORGAN, B. B., 1947.—“Host-parasite relationships and geographical distribution of the Physalopterinae (Nematoda).” Year 1946, 38, 273–292.

(653a) This is the first of an annual series of reports on a parasite survey of north-west Wisconsin fishes. 2,059 fresh fishes from 54 different lakes, streams and bass-rearing ponds were examined, and parasites were found in 96.4%. The species found in each host are tabulated separately. In all there were 42 Trematoda, 17 Cestoda, 15 Nematoda and one nematode larva, and 7 Acanthocephala. In a few cases the species or genus was not identified. [None were new and none of the known species are described.] R.T.L.

(653b) 80.2% of 106 fishes of Brule River in Douglas County, north-west Wisconsin, were in general lightly parasitized, but the larvae of *Neascus* sp. caused heavy infections with “black spot” in *Catostomus c. commersonnii* and *Cottus b. bairdii*. Twelve Trematoda, 5 Cestoda, 7 Nematoda and 5 Acanthocephala are listed with their host incidence. R.T.L.

(653c) Morgan lists the species of *Physaloptera*, *Abreviata* and *Skrjabinoptera* and their hosts according to classes, orders, families and geographical distribution to facilitate a comprehensive view of host-parasite relationships. R.T.L.



## 654—Türk Tıp Cemiyeti Mecmuası. (Bulletins de la Société Turque de Médecine.)

- a. TOPALOĞLU, A., 1947.—“Safra yollarına açılmış bir karaciğer kist hidatiki vak'ası.” [A case of hydatid cyst of the liver ruptured into the bile ducts.] 13 (2), 83–85. [Summaries in Appendix in English pp. 11–12, and in Annexe Française p. 12.]

## 655—Věstník Československé Zoologické Společnosti. Acta Societatis Zoologicae Cechoslovenicae.

- a. FANTIŠ, A. & HAVLÍK, O., 1947.—“Příspěvek k posnání pathogenity parazitických nematodů. (Parazitární pseudocysta pankreatu u *Turdus merula*). Note on a parasitary pseudocyst of pancreas in *Turdus merula*, caused by a nematode.” 11, 92–97. [English summary p. 96.]
- b. HAVLÍK, O., 1947.—“Revise českých Gordioidei (Nematomorpha). The Gordioidea (Nematomorpha) of Bohemia.” 11, 159–184. [English summary pp. 181–183.]

(655a) The pancreatic pseudocyst described was most probably caused by *Vigueira turdi*. The worms had not entered the pancreas by the pancreatic duct as has been previously described, but by direct invasion through the intestinal wall into the pancreatic region. The tissue reaction was remarkably similar to that in mammals: there was a massive participation of eosinophil and pseudo-eosinophil leucocytes and foreign-body giant cells in the inflammatory infiltrations around the parasites in the cyst and in the intestinal wall.

E.M.S.

(655b) Havlík describes nine species of gordiids collected in Bohemia. *Paragordionus vej dovskyi* is redescribed from the type material, and *P. bohemicus* n.sp. is described. Descriptions are also given of *Parachordodes pustulosus*, *P. tolosanus* and a *Parachordodes* sp. resembling *P. tolosanus* but differing in possessing two kinds of areolae, which are described. Besides typical *Gordionus scaber scaber* a new subspecies is also described, *G. scaber hykai* n.subsp., probably from the same host *Pterostichus niger*. *Gordionus preslii*, and *G. lumpei* (a single male only), complete the material described. Definitions of the new forms are given in the English summary.

E.M.S.

## 656—Veterinariya.

- a. DEMIDOV, N. V., 1947.—[Role of *Strongylus equinus* larvae in the pathology of the pancreas.] 24 (10), 9–10. [In Russian.]
- b. ORLOV, I. V., 1947.—[Soviet helminthology.] 24 (11), 12–15. [In Russian.]

(656a) Demidov examined the pancreas of 65 horses and found in 40 cases the larvae of *Strongylus equinus*. They were found both under the capsule and in the tissue of the pancreas. Only in two cases did he find distinct pathological lesions producing haematomas.

C.R.

## 657—Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening i København.

- a. WESENBERG-LUND, E., 1947.—“On three parasitic nematodes from Cetacea.” 110, 17–30.
- b. ALLGÉN, C., 1947.—“Papers from Dr. Th. Mortensen's Pacific Expedition 1914–16. LXXIV. On some freeliving marine nematodes from Tobago (Br.W.I).” 110, 45–63.
- c. ALLGÉN, C. A., 1947.—“Papers from Dr. Th. Mortensen's Pacific Expedition 1914–16. LXXV. West American marine nematodes.” 110, 65–219.

(657a) Wesenberg-Lund considers the family Pseudaliidae to be distinct from the Metastrongylidae because of the very much reduced bursa of the males and their location in the respiratory system or veins of marine mammals. Excellent photographs are given of *Pseudalius inflexus* and *Stenurus minor* in the heart and lungs and in the cranial sinuses of *Phocaena phocaena*, and the specimens are described and illustrated. Specimens from the head sinuses of *Lagenorhynchus acutus* proved to be *Stenurus globicephalae* and these also are described and drawn.

E.M.S.

(657b) Allgén describes *Oncholaimus tobagoensis* n.sp., *Bolbella tobagoensis* n.sp., *Desmodora* (?) *dubia* n.sp., *Spilophora mortenseni* n.sp., *S. antillensis* n.sp., *Chromadora*

*paramacrolaimoides* n.sp., and *Monhystra tobagoensis* n.sp., all collected in salt water near Tobago. Other species found were *Anticoma limalis*, *Leptosomatum bacillatum*, *Viscosia glabra*, *Enchelidium tenuicolle*, *Cyatholaimus sunesoni*, *Draconema cephalatum*, *Spilophorella paradoxa* and *Euchromadora vulgaris*.  
E.M.S.

(657c) In contrast to the nematodes of the Atlantic coasts, those of the Pacific coasts have been very little studied. Allgén remedies this defect, at least for the coast of California and the Bay of Panama. Tables list the species found in the following localities: Bay of Panama (Contadora, Perlas Islands, Taboguilla); Bay of San Diego; La Jolla (shore, 10 fathoms and 10-25 fathoms shown separately); San Pedro (harbour and shore separately listed). A list of the 100 species found, arranged systematically, includes the following new ones: *Paranticoma tenuis* n.sp., *Thoracostoma microlobatum* n.sp., *T. anchorilobatum* n.sp., *T. crassidermum* n.sp., *Phanoderma tenuicolle* n.sp., *P. coecum* n.sp., *Thalassoalaimus tardus* var. *tenuis* n.var., *Enoplus micrognathus* n.sp., *E. californicus* n.sp., *Pontonema californicum* n.sp., *P. jollaense* n.sp., *Oncholaimus trichospiculum* n.sp., *Oncholaimellus carlbergi* n.sp., *Viscosia paralangrunensis* n.sp., *V. taboguillensis* n.sp., *V. pseudosegmentata* n.sp., *V. pedroensis* n.sp., *Enchelidium brevicaudatum* n.sp., *E. macrolaimum* n.sp., *Eurystomatina spissidentatum* n.sp., *E. californicum* n.sp., *E. propinquum* n.sp., *E. perlasi* n.sp., *Paracanthochus paramacrodon* n.sp., *P. mortenseni* n.sp., *Cyatholaimus taboguillensis* n.sp., *Seuratiella californica* n.sp., *S. duplex* n.sp., *S. pedroensis* n.sp., *Desmodora paramicrochaeta* n.sp., *D. parintermedia* n.sp., *D. californica* n.sp., *D. cephalophora* n.sp., *D. brachycahitata* n.sp., *D. brachypharynx* n.sp., *Hypodontolaimus obtusicaudatus* n.sp., *Spilophora pusilla* n.sp., *Euchromadora elegans* n.sp., *Chromadora neoheterophya* n.sp., *C. paramacrolaimoides* n.sp., *C. pacifica* n.sp., *C. parobtusata* n.sp., *Sabatiera pacifica* n.sp., *Axonolaimus tenuicollis* n.sp., *A. diegoensis* n.sp., *Odontophora pacifica* n.sp., *Diplopeltis californicus* n.sp., *Monhystra arcospiculum* n.sp., *Sphaerolaimus pacificus* n.sp., *Nemania obtusicaudatum* n.sp.  
E.M.S.

#### 658—Virginia Medical Monthly.

- a. CRADDOCK, G. B. & TOONE, Jr., E. C., 1947.—“Electrocardiographic changes occurring during antimony therapy.” 74 (5), 210-214.

(658a) Abnormal electrocardiographic changes occurred in four patients being treated for schistosomiasis with foudadin. The effect was transitory and no clinical evidence of myocardial damage was shown. It is considered unwise to withhold therapy on account of such electrocardiographic changes.  
E.M.S.

#### 659—Vlaamsch Diergeneeskundig Tijdschrift.

- a. MAENHOUT, E. F. M., 1947.—“Trichurose bij runderen.” 16 (7/8), 82-86. [English, French & German summaries p. 86.]
- b. COUGOULIS, 1947.—“Phenothiazine in de behandeling van maag-darmstrongylose bij het schaap.” 16 (11), 138-144.

(659a) Maenhout records that *Trichuris affinis* [= *T. ovis*] in large numbers was pathogenic for heifers eight months old. Clinical manifestations were marked emaciation, weakness, restlessness, staring coat, arched back, sunken eyes, hindquarters and tail soiled with faeces, slight oedema of the throat region and a profuse watery diarrhoea with air bubbles in the discoloured excreta. One animal died, apparently from peritonitis. Apart from a slight oedema of the throat there was little abnormality except in the caecum, in which *T. affinis*, partly embedded in the mucosa, was present in large numbers; the mucosa was red and slightly swollen; punctiform haemorrhages were present in the sub-mucosa. Intraruminal administration of 5 gm. tincture of iodine, 5 gm. chloroform, 30 gm. oil of turpentine and 60 gm. medicinal oil produced clinical recovery, although a few eggs were still present in the faeces.  
P.L.ler.



(659b) Cougoulis reports from the Belgian Congo on the efficiency of phenothiazine in gastro-intestinal trichostrongylosis in 28 sheep, 10 lambs and 4 goats. A 100% cure was not obtained by dosing the animals with 15 gm. or 20 gm. of the drug. Administration of the drug mixed with crushed maize, or suspended in water and given by stomach tube, produced a marked decrease in the number of eggs passed in the faeces. The remedy was more efficient in powder form than in granular form. Failure to obtain 100% removal of strongyles is attributed to the probable presence of immature females at the time of treatment, or to reinfection following dosing. Phenothiazine is considered a better anthelmintic than thymol, carbon tetrachloride or copper sulphate. As a prophylactic this drug may contribute materially to the successful rearing of sheep in the Lusambo province, where *Haemonchus contortus* and oesophagostomes are the most commonly occurring trichostrongylids. P.L.l.e.R.

**660—Vrachebnoe Delo. Kharkov.**

- \*a. BELOVA, O. A., 1947.—[Human infection with *Hymenolepis diminuta*.] 27 (4), 313-314.

**661—West Virginia Medical Journal.**

- a. ASH, J. E., 1947.—“Filarial infections.” 43 (3), 99-103.

**662—Wiener Klinische Wochenschrift.**

- a. MAYREGG, G., 1947.—“Zur Behandlung der fortschreitenden Peritonitis infolge Wurmfortsatzdurchbruches.” 59 (30), 496-498.

**663—Wiener Tierärztliche Monatsschrift.**

- a. SCHEUHAMMER, F., 1947.—“Über eine durch Fadenwürmer (*Thelazia rodensis*) verursachte, gehäuft auftretende Conjunctivitis bei Rindern im südlichen Burgenlande.” 34 (1), 32-33.  
 b. WALSER, A., 1947.—“Das Wurmmittel Phenothiazin nicht immer verträglich.” 34 (1), 33-34.  
 c. HNOLIK, F., 1947.—“Erfahrungen bei der Trichinenschau in Wien.” 34 (3), 153-163.  
 d. PRÜGELHOF, F., 1947.—“Igitol-Pulver, ein ausgezeichnetes Mittel gegen Darm-Strongylen der Pferde.” 34 (8), 422-423.  
 e. BÖHM, L. K., 1947.—“Oesophagostomosis nodularis im Dickdarm der Gemse.” 34 (10), 518-523.  
 f. WIRTH, D., 1947.—“Lungenwurmkrankeheit des Hundes.” 34 (12), 768-771.

(663a) Scheuhammer reports an outbreak of conjunctivitis associated with the presence of *Thelazia rhodesii* (the name is corrected in an erratum note on p. 168) in the eyes of cattle in various districts in Burgenland. He has treated 22 animals by the introduction of cocaine solution followed by mechanical removal of the parasites; he considers that the infection must be widespread. E.M.S.

(663b) Walser gives reports of two cases in which toxic symptoms followed the administration to Haflinger mares of 30 gm. phenothiazine. In one case complete recovery followed after 14 days. The second horse had to be slaughtered 60 hours after phenothiazine dosage, and showed enteritis post mortem. E.M.S.

(663c) Trichinella is rare in pigs in Austria, but two autochthonous cases were seen by Hnolik during five years' meat inspection in Vienna. The remainder of the 65 condemned carcasses came from other countries: 1 from Hungary, 8 from Yugoslavia, 8 from Bulgaria, 12 from East Prussia and 36 from Poland. The percentage varied between 0.0016 and 0.0165 in the million pigs examined. In the same animals, 3,088 cases of calcification were recorded, and the difficulties of differential diagnosis are discussed. E.M.S.

(663d) Igitol powder (active principle hexachlorethane), which is ordinarily used as a watery suspension against liver-fluke in sheep and cattle, proved effective against horse strongyles, but not against *Ascaris*. The dose was 50-80 gm. according to size, given

in 2-3 litres water an hour before the morning watering and feeding, followed by a day's rest. Because of the smell the suspension can only be administered by stomach tube. The drug was well tolerated but sometimes caused loss of appetite for a few days; the faeces were offensive and there was usually diarrhoea for a few days. Strongyle eggs disappeared after 2-3 days, and faecal examination six weeks later showed that the effect was to kill the worms, not merely to suppress egg laying.

E.M.S.

(663e) Böhm describes the occurrence of a heavy infection with *Oesophagostomum* sp. in a chamois, from examination of a portion of the large intestine submitted to him. Most of the nodules contained degenerated (not calcified) matter, but many of them contained nematode larvae in a poor state of preservation. These measured 440-625 $\mu$  in length by 32-34 $\mu$  wide. It is considered that they are probably the larvae of *O. venulosum*.

E.M.S.

(663f) A case of fatal catarrhal pneumonia due to *Angiostrongylus vasorum* is described in an 18-months-old setter which had recently been brought to Vienna from near Boulogne. This infection had not previously been recorded in Austria.

E.M.S.

#### 664—Wiener Zeitschrift für Innere Medizin.

- a. FUCHS, G., 1947.—"Zum röntgenologischen Nachweis von Echinokokkuszysten im Magen." 28 (3), 135-137.

#### 665—Yearbook. Institute of Inspectors of Stock of New South Wales.

- a. WALKER, D. J., 1947.—"Carbon tetrachloride poisoning in sheep." Year 1947, pp. 57-58.  
b. BEARDWOOD, J. C., 1947.—"Ascaris infestation in pigs. Field trial with sodium fluoride and oil of chenopodium." Year 1947, pp. 73, 75-77.

(665a) Four case histories of poisoning of sheep after drenching with carbon tetrachloride are reported. As the flocks had been running on alluvial river flats for over three weeks, and there had not been any noticeable changes in feed conditions, the fatalities are associated with the growing green feed.

R.T.L.

(665b) Beardwood has made comparative trials of sodium fluoride and oil of chenopodium as anthelmintics for *Ascaris* in pigs. The former, at the rate of 0.15 gm. per lb. body-weight, was mixed as dry powder with damp mash and given by the individual feed method; the latter was administered by stomach tube at the rate of 1.0 ml. per 25 lb. body-weight in 2 oz. castor oil. The pigs were starved for about 20 hours and not fed until the morning following treatment. Water was available until two hours before and was withheld until five hours after treatment. Provided sufficient individual pens were available one man could feed the sodium fluoride mixture in one-third of the time taken by two men to drench an equal number of pigs with chenopodium. Cost of the drugs was greatly in favour of sodium fluoride. Just after treatment, the average gain in weight in those treated with sodium fluoride was two-thirds only of that of the controls, whereas the chenopodium treatment had no noticeable effect.

R.T.L.

#### 666—Zeitschrift für Urologie.

- a. BÖHRINGER, Jr., K., 1947.—"Über Nierenechinokokkus." 40 (11/12), 301-314.

#### 667—Zentralblatt für Chirurgie.

- a. OLLINGER, P., 1947.—"Ueber eine einzigartige Beobachtung eines Leberechinokokkus." 72 (9), 973-977.

#### 668—Zodiac. Aberdeen University Medical Society.

- a. JOHNSTON, J. B., [1947].—"A case of cysticercoïd epilepsy." [1 (1)], 17-18.



**669—Zoologica. New York.**

- a. NIGRELLI, F. R. & STUNKARD, H. W., 1947.—“Studies on the genus *Hirudinella*, giant trematodes of scombriform fishes.” 31 (4), 185-196.

(669a) Nigrelli & Stunkard have examined, in the living and in the fixed condition, 56 specimens of *Hirudinella* from nine species of scombriform fishes and have compared them with the numerous published descriptions of the genus. They conclude that there are only two valid species, *H. ventricosa* in *Acanthocybium* spp. and *H. marina*, the type species, in other hosts. Because of the extreme size and muscularity of these trematodes, and their consequent extreme variability, and because of their small numbers in any one host and the wide variety of habitats they assume, their taxonomy is unusually difficult and may require further revision.

E.M.S.

**670—Zoologica Poloniae.**

- a. GRABDA, E. & SIWAK-GRABDA, J., 1947.—“Recherches sur *Nematobothrium sardae* G. A. et W. G. MacCallum 1916 (Didymozoonidae Monticelli 1888) parasite de la cavité branchiale du poisson *Sarda sarda* Bloch provenant de la Mer Noire.” Years 1940-47, 4, 11-33. [Polish summary pp. 11-12.]

(670a) In this paper Grabda & Siwak-Grabda give a detailed redescription of *Nematobothrium sardae*, based on material from 46 specimens of *Sarda sarda* from the Black Sea. They draw special attention to the structure and formation of the cysts formed by these parasites. [See also above, No. 410a.]

C.R.

**671—Zoologicheskii Zhurnal.**

- a. ZEKHNOV, M. I., 1947.—[Age alterations in the infection of the rook (*Corvus frugilegus* L.) by endoparasites.] 26 (2), 133-142. [In Russian: English summary p. 142.]

(671a) The endoparasites of the rook fall into five groups according to their prevalence and number in birds of different ages: (i) parasites occurring only in nestlings, e.g. *Plagiorchis brauni*, *Prosthogonimus ovatus*, *P. cuneatus*, *Porrocaecum ensicaudatum*; (ii) parasites of nestlings and adults whose incidence is greater in nestlings, e.g. *Capillaria resecta*, *Syngamus trachea*, *Hymenolepis serpentulus*; (iii) species more widely distributed in adult birds but more numerous in fledglings, e.g. *Anomotaenia constricta*, *Dilepis undula*, *Capillaria contorta*; (iv) parasites occurring in nestlings and in adult birds, the incidence increasing with age of the host, e.g. *Acuaria anthuris*, *Microfilaria* sp.; and (v) parasites found only in adult birds, e.g. *Tamerlania zarudnyi*, *Agamospirura* sp., *Diplotriaeana tricuspis*, *Microtetrameres inermis*. The percentage of rooks infected increases with age, as does also the number of species of parasites and the percentage of mixed infections, but the intensity of infection decreases.

E.M.S.

**672—Zootecnia e Veterinaria. Milan.**

- \*a. SPENA, A., 1947.—“La distomatosi epatica in Etiopia. Esperienze di terapia col tetracoloro di carbonio nei bovini ed ovini indigeni.” 2, 440-448.

## NON-PERIODICAL LITERATURE

673—ANON., 1947.—“Report of Regional Animal Parasite Conference, Atlanta, Ga., October 27–28, 1947.” Washington: United States Department of Agriculture Extension Service, 14 pp.

674—AMOS, D. W., 1947.—“Mosquito control. Training manual, including section on the organization of the filariasis campaign in Fiji.” Suva, Fiji, 43 pp. [Revised.]

An attempt is being made in Fiji to eradicate non-periodic filariasis, which is transmitted chiefly by *Aedes pseudoscutellaris*. As the range of flight of the mosquito is quite short, it is only necessary to prevent it from breeding and sheltering within and near towns and villages. The co-operation of the local population is being sought to clear, and keep cut and cleared all scrub, bushes, long grasses and low branches of trees for about a hundred yards around settlements, to remove all shelter for resting mosquitoes. R.T.L.

675—\*BABIĆ, I., 1947.—“Udžbenik veterinarske parazitologije (helmitologije i arahno-entomologije) III. dio Cestodea (trakavice).” Zagreb: Naklada NSO Veterinarskog Fakulteta, 57 pp., 60 din.

676—BRITO GUTTERRES, J. DE, 1947.—“Contribuição para o estudo das verminoses gastro-intestinais dos bovinos africanos. A tricostrongilose bovina em Africa.” Thesis, Lisbon, 92 pp.

Gastro-intestinal trichostrongylosis is an important cause of morbidity among domesticated and wild bovines in the Biano da Grelco sector of the Belgian Congo. It is estimated that the mortality rate is 54% with an additional 12% due to the combined effect of helminth and coccidial infections. In addition to the presence of several well known species, six are described as new to science. These are: *Cooperia redunca* n.sp. in cattle and *Redunca redunca*; *C. borgesii* n.sp. in cattle, sheep and antelopes; *C. minor* n.sp. in cattle; *C. hippotragusi* n.sp. in cattle and *R. redunca*, *Hippotragus equinus* and *Ourebia ourebi*; *Trichostrongylus mönnigi* n.sp. in cattle, sheep and *H. equinus*; and *Ostertagia* (*O.*) *neveulemairei* n.sp. in cattle, sheep, *H. equinus*, *Bubalis* sp. and *O. ourebi*. R.T.L.

677—BUMP, G., DARROW, R. W., EDMINSTER, F. C. & CRISSEY, W. F., 1947.—“The ruffed grouse. Life history—propagation—management.” New York State Conservation Department, xxxvi+915 pp.

This book is an account of a wide investigation into the story of the ruffed grouse, mainly in New York State, and covers a very broad field of observations. Included in it is a chapter dealing with its diseases, some of which have helminth parasites as their cause. Though the ruffed grouse may be host to 27 helminth species, there is no evidence that any one has a strong causative relationship with the fluctuations in numbers of the bird and no one malady can rightly be termed “grouse disease”. *Dispharynx spiralis* causes many deaths, particularly during autumn and winter: no other helminth species appears to be responsible for the deaths of many birds. Cestodes and sundry intestinal nematodes occur frequently but appear to be harmless. Gapeworm is rare, occurring in less than 1% of the young birds examined. [Compare Edminster, No. 682 below.] P.A.C.

678—DAVIDSSON, I., 1947.—“Rannsóknir á jurtasjúkdómum 1937–1946.” [Research on vegetable diseases 1937–1946.] Reykjavik: Rit Landbúnaðardeildar. A-Flokkur, No. 2, 37 pp.

Among pests of greenhouse crops in Iceland, *Heterodera marioni* attacks tomatoes and cucumbers. E.M.S.

679—DEMETZ, J., 1947.—“Hygiène des pâturages et prophylaxie des maladies parasitaires.” Thesis, Alfort, 178 pp.

This thesis summarizes the published studies of other authors on the prophylaxis and control of helminth infections from the point of view of pasture hygiene. R.T.L.

680—DÍAZ UNGRÍA, C., 1947.—“Manual de parasitología de los animales domésticos.” Madrid: Espasa-Calpe, S.A., 523 pp., 65 pesetas.

681—DOGIEL, V. A., 1947.—[Course in general parasitology.] Leningrad: Uchpedgiz, 2nd edit., 372 pp. [In Russian.]



- 682—EDMINSTER, F. C., 1947.—"The ruffed grouse. Its life story, ecology and management." New York: Macmillan Co., xxvi + 385 pp., 25/-.

This book is the outcome of seven years' study of the ruffed grouse, based mainly in Ithaca, N.Y., and while being scientifically accurate is intended to interest also the sportsman and lay reader. Edminster points out that the incidence of disease organisms and the intensity of individual infestation are directly related to the density of the birds, being low when birds are scarce and vice versa. *Dispharynx spiralis* is the most significant of the helminth parasites and death may result from severe infestations. No other helminth seems to be pathogenic to ruffed grouse though the bird may be host to 14 species of roundworms. Seven species of cestodes have been recorded, being more abundant in young birds, and species of *Hymenolepis* may occasionally be pathogenic. None of the trematodes appear to be producers of disease: they seem to be of rare occurrence. [Compare Bump et al., No. 677 above.]

P.A.C.

- 683—\*HAWKINS, P. A., 1947.—"Experimental parasitology." East Lansing: Michigan State College Press, 42 pp.

- 684—\*HUTZLI, H., 1947.—"Beitrag zur Kenntnis der Darmstrongylose der Ziegen." Inaugural Dissertation, Berne.

- 685—KREIS, H. A., 1947.—"Kompendium der Parasitischen Würmer im Menschen." Basle: Benno Schwabe & Co., 136 pp., Sw. Fr. 10.-

- 686—LEÓN, L. A., 1947.—"Diagnóstico microscópico de las enfermedades tropicales de América." Publicaciones de la Facultad de Ciencias Medicas. Universidad Central, Quito, Ecuador, No. 2, 108 pp.

- 687—LIBER JUBILARIS J. RODHAIN à l'occasion de son soixante-dixième anniversaire. (Société Belge de Médecine Tropicale.)

- a. BRUMPT, E., 1947.—"Filarioses et éléphantiasis." pp. 103-120.

- b. DESCHIENS, R. & LAMY, L., 1947.—"La thérapie chimique de l'oxyurose." pp. 171-194.

(687a) Brumpt summarizes the evidence in support of Manson's opinion that tropical elephantiasis is caused by infections with *Wuchereria bancrofti*, *W. malayi* and *W. pacifica*, and is not the result of microbic invasion. The causative role of *Onchocerca volvulus* and *Dipetalonema streptocerca* is less certain. Brumpt maintains that *O. caecutiens* of Central America is distinct from *O. volvulus* since it does not cause dermatitis, lichenification of the skin nor pruritus, and that it has not been imported from Africa as others have assumed.

R.T.L.

(687b) Deschiens & Lamy discuss the theoretical basis of medication in enterobiasis, the incidence of which had increased in Paris to 40% of the 1944 population. Treatment by slow intoxication of the parasite gives the most satisfactory results with the least effect on the patient, and drugs acting in this way are fully considered, viz., insoluble salts of bismuth, triphenylmethane derivatives, and phenothiazine and its derivatives. Indications, contra-indications and suitable dosages for each type of drug are given, with a warning as to the risk attending use of phenothiazine in young children.

E.M.S.

- 688—\*LÔBO, R. M., 1947.—"Determinações cardíacas da esquistossomose mansônica." Thesis, Bahia.

- 689—LÓPEZ-NEYRA, C. R., 1947.—"Parasitología animal." Granada: Editorial y Librerías Prieto, 428 pp., 100 pesetas.

López-Neyra's book on veterinary parasitology includes protozoan, helminth and insect parasites. He gives the characters of the various families, orders and genera, and describes those species found in man and the domestic animals. He considers the symptoms and pathological changes associated with the more important species, e.g. *Schistosoma* spp. The illustrations all appear to be original. There is some general matter dealing with the origins of parasites and with the host-parasite relationship.

P.A.C.

690—\*MIKAČIĆ, D., 1947.—"Udzbenik veterinarske parasitologije (helminologije i arahno-entomologije) IV. dio Nematoda (valjkasti crvi)." Zagreb : Naklada NSO Veterinarskog Fakulteta, 70 pp., 64 din.

691—NIVERD, C., 1947.—"Traitement de la strongylose pulmonaire bovine par les injections intratrachéales de tétrachlorure de carbone en émulsion huileuse." Thesis, Alfort, 59 pp.

Niverd outlines the symptoms of acute and chronic dictyocauliasis in cattle, reviews published work on anthelmintic treatment, and gives a detailed account of his own observations on 23 cases which had been treated by three intratracheal injections of 10 c.c. each of an emulsion containing one part of carbon tetrachloride and four parts of olive oil. This method proved successful in cases not complicated by pneumonia. R.T.L.

692—PRIOUZEAU, M., 1947.—"La paramphistomose bovine en Vendée." Thesis, Alfort, 95 pp.

In France *Cotylophoron cotylophorum* and *Paramphistomum cervi* occur in cattle, the former in the east, the latter in the west. A brief account of their morphology, life-history and pathology is taken largely from published works. Priouzeau reports that 40 out of 1,000 cattle examined at the abattoir at Chaillé-les-Ormeaux, 2% of the cattle from the Bocage Vendéen and 7% of those from the Poitou marsh were found to be infected with *P. cervi*. It is suggested on epidemiological grounds that *Helix nemoralis* may be the vector. R.T.L.

693—REPORT. NAVAL MEDICAL RESEARCH INSTITUTE, Bethesda, Maryland.

- a. STIREWALT, M. A. & KUNTZ, R. E., 1947.—"Two molluscicides of promise." Project X-535, Report No. 10, 7 pp.
- b. KILLOUGH, J. H., 1947.—"An evaluation of three clinically accepted antimonial compounds in experimental infection with *Schistosoma mansoni*." Project X-535, Report No. 11, 11 pp.
- c. McNAUGHTON, R. A., 1947.—"Studies on the oxygen consumption of *Schistosoma mansoni*." Project X-535, Report No. 12, 10 pp.
- d. JACHOWSKI, Jr., L. A., STIREWALT, M. A. & KUNTZ, R. E., 1947.—"Laboratory tests to determine the toxicity of some organic chemicals to the snail *Australorbis glabratus* (Say)." Project X-535, Report No. 13, 5 pp.

(693a) Dinitro-*o*-cyclohexylphenol and its dicyclohexylamine salt were lethal to *Australorbis glabratus*, *Bulinus truncatus* and *Oncomelania fausti* in concentrations of 2 p.p.m. All the snails tested died within 24 hours. There was no phytotoxic activity on *Elodea*, duckweed or green algae from exposure for one week. Small mammals were not harmed, but goldfish were killed within 24 hours in an unaerated solution of 0.5 p.p.m. of either chemical and in aerated solutions of 1 p.p.m. of dinitro-*o*-cyclohexylphenol or of 2 p.p.m. of the amine salt. R.T.L.

(693b) When foudadin, tartar emetic and anthiomaline were tested against mice experimentally infected with 300 cercariae of *Schistosoma mansoni*, the best therapeutic results were obtained with foudadin. The anthelmintic effect of anthiomaline was markedly improved when injections were increased from once daily to twice daily for one or two weeks, whereas that of foudadin and of tartar emetic remained unchanged. As during treatment the worms migrated from the mesenteric veins to the liver, examination of the faeces proved an unreliable indication of infection. R.T.L.

(693c) The optimum pH for the oxygen uptake of *Schistosoma mansoni* is 7.4. The optimum concentration of the phosphate ion was found to be .04 M. A fall in oxygen uptake of the worms followed the removal of Na, K, Ca or Mg ions, phosphate buffer or glucose from the medium. Concentrations of each of these substances such as those occurring in human serum were optimal. In a solution containing NaCl .143 M, KCl .00256 M, CaCl<sub>2</sub> .00110 M, MgCl<sub>2</sub> .00208 M, phosphate buffer at pH 7.4 .101 M and glucose 100 mg. per 100 c.c., the worms consumed 12% more oxygen than in the standard Ringer-phosphate-glucose solution. R.T.L.



(693d) Of 42 organic compounds tested as molluscicides against *Australorbis glabratus*,  $\alpha$ -chloro esters and amides of aliphatic monobasic acids showed special activity, the most lethal being methyl and ethyl chloracetates and chloracetamide. The minimum lethal concentration of ethyl chloracetate (0.0001 M) approaches that of copper sulphate. Dinitro-*o*-cyclohexylphenol killed at a concentration of 2 p.p.m. (0.000008 M). It is pointed out that the compounds tested are not practical molluscicides. R.T.L.

694—RUIZ, J. M., 1947.—“Revisão do gênero *Cruzia* (Nematoda : Oxiuroidea) e estudo das espécies brasileiras.” Thesis, São Paulo, 105 pp.

Ruiz discusses the systematic position of the genus *Cruzia* and agrees with Travassos and with Yorke & Maplestone in maintaining for it the family Cruzidae. After a careful consideration of the differential characters of the species, he gives notes on each of these, with keys for the separation of the males and of the females. The three Brazilian species are then described in greater detail, namely *C. tentaculata*, *C. travassosi* and *C. rudolphii* n.sp., whose host is the snake *Erythrolamprus aesculapii*. E.M.S.

695—\*SCHÖNBORN, G., 1947.—“Die Fleischschau, Lehrgang für Fleischbeschauer und Trichinenschauer.” Hanover : M. & H. Schaper, 289 pp., DM 14.

696—\*SCHWARZ, R., 1947.—“Die Wirksamkeit des Phenothiazins als Strongylidenmittel beim Pferde.” Dissertation, München.

697—\*SIEBER, U., 1947.—“Die Leberegelseuche in Hessen nach dem gegenwärtigen Stand.” Dissertation, Giessen.

698—SKRYABIN, K. I., 1947.—[Trematodes of animals and man. Principles of trematodology. Volume I.] Moscow & Leningrad : Izdatelstvo Akademii Nauk SSSR, 515 pp., 33 roubles. [In Russian.]

The first volume of this series contains two parts : general and systematic. In the general part Skryabin defines the Trematoda, then gives anatomic and biological outlines of the digenetic trematodes, with a division into the main units and a table for the identification of the suborders. In the systematic part are included the characteristic features of 19 families : Atractotrematidae, Bivesiculidae, Cathaemasiidae, Clinostomatidae, Collyriclidae, Echinostomatidae, Eucotylidae, Megaperidae, Mesotretidae, Notoporidae, Ommatobrephidae, Opisthogonoporidae, Orchipidae, Philophthalmidae, Psilostomatidae, Renicolidae, Sphincterostomatidae, Stomylotrematidae and Waretrematidae, with descriptions of all the genera and species contained. Altogether there are given the diagnoses of 155 genera with an illustration of typical species in each genus. There is only one new genus created, *Mammorchipedium* n.g. for *Distoma isostoma* Rud., in the family Orchipidae. The chapter referring to the family Echinostomatidae was written by Bashkirova, and the chapter on Echinostomatidae of domestic and game birds of Russia by Skryabin, Petrov & Bashkirova. At the end of each chapter there is an extensive literature referring to each family described in the monograph. C.R.

699—\*WAGNER, E., 1947.—“Drei Jahre Schafgesundheitsdienst im Sudetenland.” Dissertation, München.

Wagner carried out experiments on the aetiology and control of worm diseases in sheep in the Sudetenland. The chief parasites were stomach and lung worms which were associated with intensive husbandry throughout the area. Tapeworms were only found incidentally, and Strongyloides and liver-fluke were unimportant. “Sprehn's tablets” were used effectively against stomach worms. Antimosan treatment against lungworm, which gave good results, was well tolerated by pregnant ewes. [From an abstract in *Berl. Munch. tierärztl. Wschr.*, Year 1948, No. 9, p. 104.] E.M.S.

700—ZELIFF, C. C., 1947.—“Manual of medical parasitology. With techniques for laboratory diagnosis and notes on related animal parasites.” Pennsylvania : State College, 2nd edit., xiv + 159 pp., \$3.75.

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## NOTE

In all indexes the reference is to the serial numbers and not to the pages. Numbers in bold type indicate abstracts, and numbers in Roman type refer to title-only entries.

In the Author Index there are no cross-references to show joint-authorship, but authors of joint papers are listed individually. Thus, a paper by "Brown, B., Jones, A. & Smith, J." would have three separate entries, "Brown, B.", "Jones, A.", and "Smith, J."

In the Index of Subjects, alphabetization is under the first word (e.g. "*Acer* sp." before "*Acerina* sp."). Under the generic name of a helminth the following order is observed : papers on the genus as such ; papers on undefined species ; papers on new and defined species, e.g.

*Capillaria*  
 — spp.  
 — *aerophila*  
 — *amarali* n.sp.

In cross-entries under names of hosts, the specific names of new species of helminths are omitted. *Anthelmintics* are listed under that word and also under the name of the parasite or disease.



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- 27t (Abstract) Lines 3-4, for "*M. spirodentatis*" read "*M. spiradentatis*"
- 64a (Title) For "11 (5)" read "2 (5)"
- 75b (Abstract) Line 1, for "*Polystomum*" read "*Polystoma*"
- 283a (Title) For "20 (2), 8-9" read "20 (3), 8-9"



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